

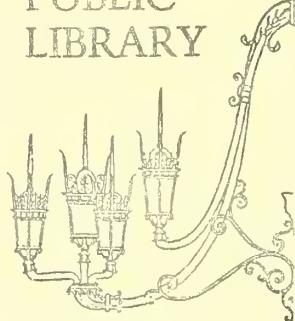
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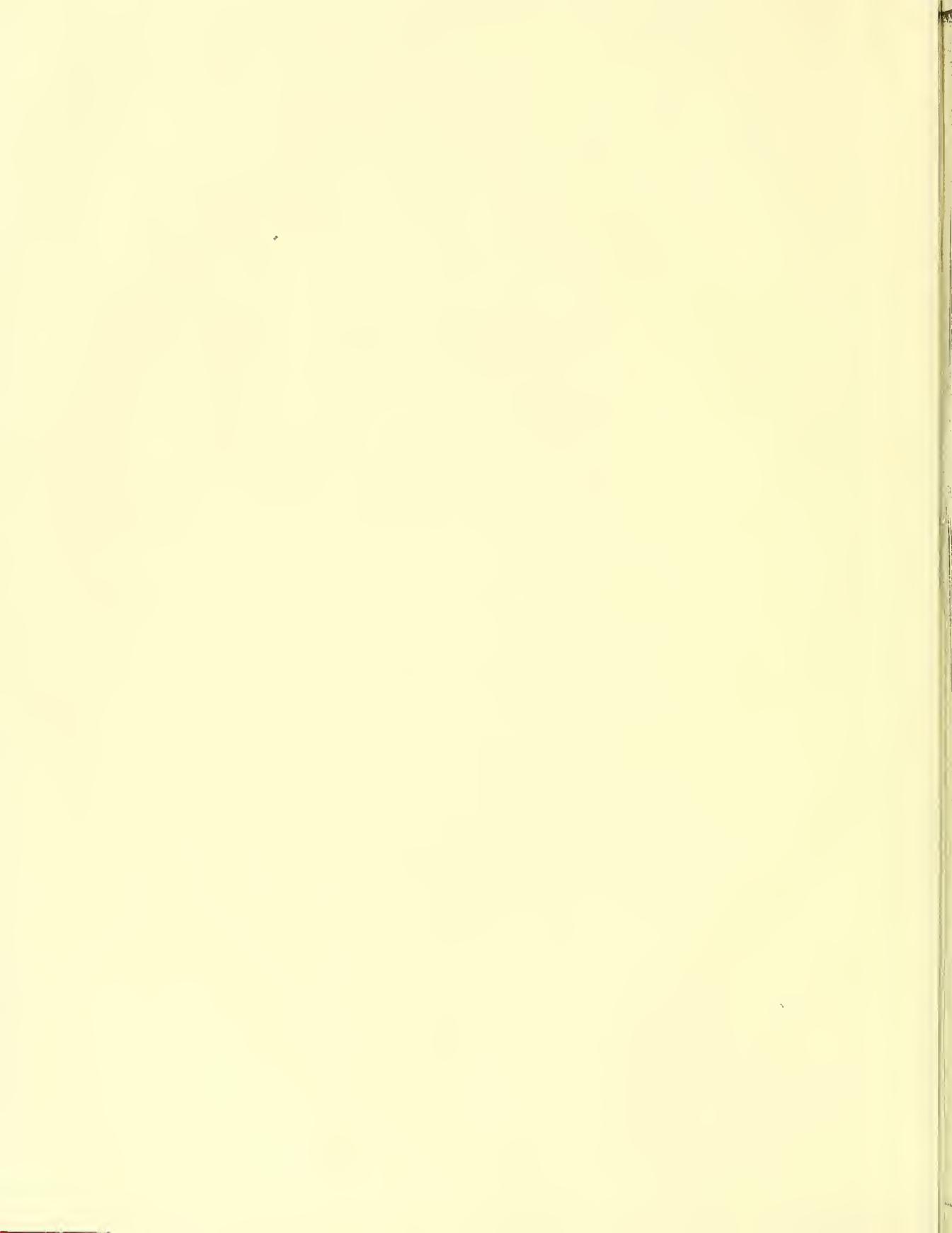
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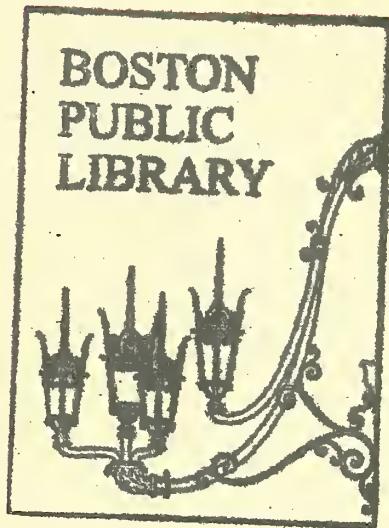
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HOUSING
IN BOSTON
INDEX
EVALUATION

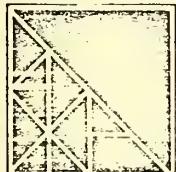
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221D3 HOUSING IN BOSTON: AN EVALUATION

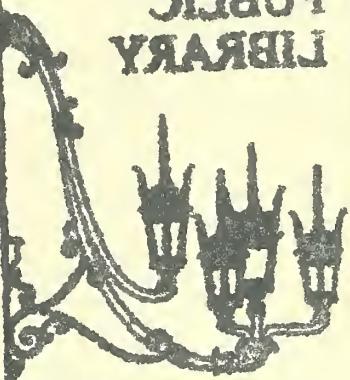
prepared by: Jerry Sauter, coordinator 1313 SUNSET SW,

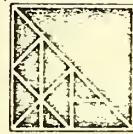


Fernando Jiménez SEATTLE 98116
Mario Small
Katheryn Kasch
John Foley

Boston Redevelopment Authority, Urban Design Dept.
Summer, 1969

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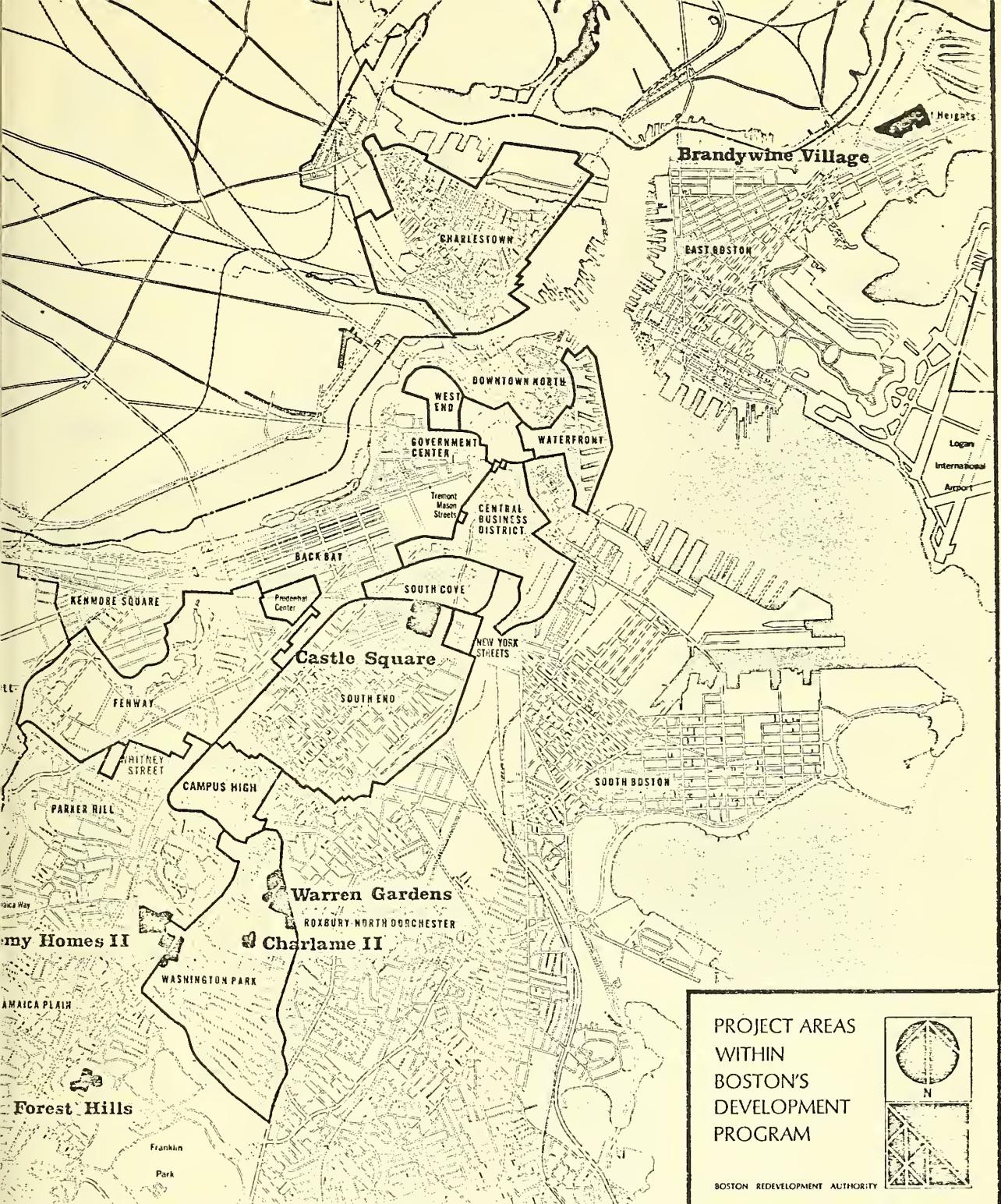




INTRODUCTION

MAP PURPOSE OF REPORT

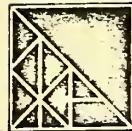
TABLE OF CONTENTS



PROJECT AREAS
WITHIN
BOSTON'S
DEVELOPMENT
PROGRAM

BOSTON REDEVELOPMENT AUTHORITY

 housing projects studied



PURPOSE OF REPORT

BACKGROUND DATA

There is a great deal of research that needs to be done concerning the problems of physical designs as they relate to the problems peculiar to the lifestyles of low or moderate income people. However, the scope of this study is not such that it can attempt to evaluate even a substantial portion of this information. This particular study will focus on gathering feedback that can be directly used by an architect in the design of future moderate or low income housing.

In this evaluation of 221(d)3 housing, the important considerations are that the information gathered be pertinent to the housing problems of low and moderate income people and in a form that an architect can use when designing new 221(d)3 housing. This evaluation has to test the present goals and objectives in terms of the needs of the people for which the housing is being designed and built. The implementation process for translating these goals into reality also needs to be evaluated. Finally, these evaluations need to be processed so that the information they contain can be used to design "better" housing.

There is also a need to check the validity of the information gathering as well as the information that is gathered. This was achieved in part by gathering the information in different ways and comparing results.

In some circles now there is considerable concern about feedback for the architect concerning his design. This is very important. However, in the design of 221(d)3 housing, it is also important for all of the people and agencies involved in the building of "public" housing to have feedback about how well this housing is serving the needs of the people it was designed for. This is also an underlying purpose of this study: to gather and process feedback for the people involved in building this housing.

SCOPE OF SURVEY

A survey which would attempt to cover all aspects of housing - environmental, cultural and physical - would lose its practical value because such a survey would require highly trained professional personnel with elaborate equipment and extended observations. As a result, it has been necessary to select a limited number of factors dealing primarily with the physical environment and based on the limitations of the present staff and budget.

Only those factors will be considered and will be likely to affect the effective use, service or administration of housing.

However, an attempt was made to evaluate neighborhood assets in terms of a minimum standard.

Primary emphasis was given to items directly associated with the design of 221(d)3 housing.

GOALS OF PROJECT

The primary goals of this study are to evaluate 221(d)3 housing in Boston and to make recommendations as to how it and other 221(d)3 housing can be improved as a result of this evaluation. A secondary objective or goal of this project is to demonstrate how an effective housing survey can and should be operated as well as what should be included in the survey.

SELECTION OF SURVEY AREA

There are to be six survey areas in Boston. These are Warren Gardens, Charlame II, parts of Castle Square, Academy II, Brandywine and Forest Hills. These sites were selected because they are some of the most recent 221(d)3 housing developments built in Boston, and they represent the final stage of development of different approaches to the design and building of 221(d)3 housing.

RESEARCH SURVEY

This is to be a summer research project that will employ college students as field workers and last approximately three months.



The data gathering techniques used will be interviewing, giving questionnaires, and doing observations. The data will be tabulated by the students but will be evaluated by the Boston Redevelopment Authority's Urban Design Staff, their consultants and the students.

PREFACE

The original intent of this survey was to use three data gathering techniques: interviews, observations, and questionnaires to gather the data we needed. The interviews and questionnaires would be used to gather information from the architects, contractors, managers, maintenance personnel, and residents of the housing developments being studied. The observations would be used to gather information about the overall functioning of these developments, as well as to check some of the information obtained from the questionnaires and interviews.

At the time of publication, this plan was completed with the exception of the interviews for the contractors, a few interviews for the architects and some of the observations. Due to lack of staff, time, and money, it was impossible to complete the study as it was originally conceived. As a result, it was decided to restrict the first phase of the study to an evaluation of resident questionnaires. In the second phase and last phase, the

data gathering would be completed and an evaluation of all the data would be undertaken at this time.

So this document represents the first evaluation of the tenants questionnaire and as such is primarily useful for the indications it gives or the directions it suggests rather than providing any kind of conclusive information.

In the appendix, there is an evaluation of the research techniques and methodology used, done by Morris Axelrod, Director of Survey Research, for the Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University. Also in this appendix is a tabulation table for all of the questionnaires used in this report.

Jerry Saulter
Coordinator

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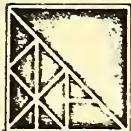


TABLE OF CONTENTS

I. INTRODUCTION

1. Map of Boston
2. Purpose of Report
3. Table of Contents

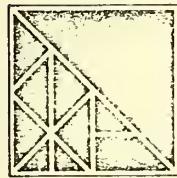
II. HOUSING DEVELOPMENTS

1. Academy Homes II
2. Charlame II
3. Warren Gardens
4. Forest Hills
5. Castle Square
6. Brandywine Village

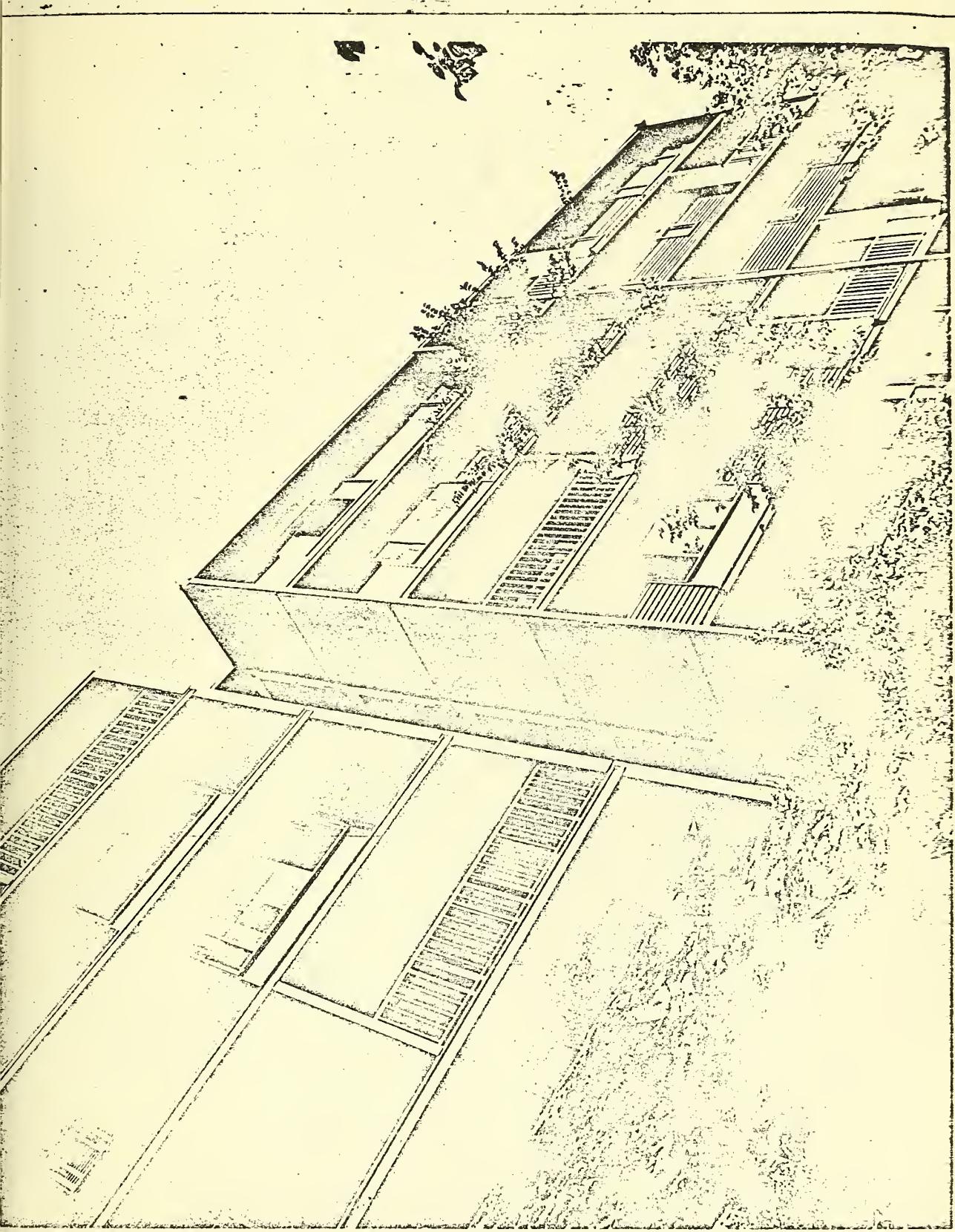
17

III. CONCLUSION

1. Analysis
2. Comments
3. Summary



HOUSING DEVELOPMENTS BRANDYWINE WARREN GARDENS
FOREST HILLS CASTLE SQUARE
ACADEMY II
CHARLAME II



ACADEMY II

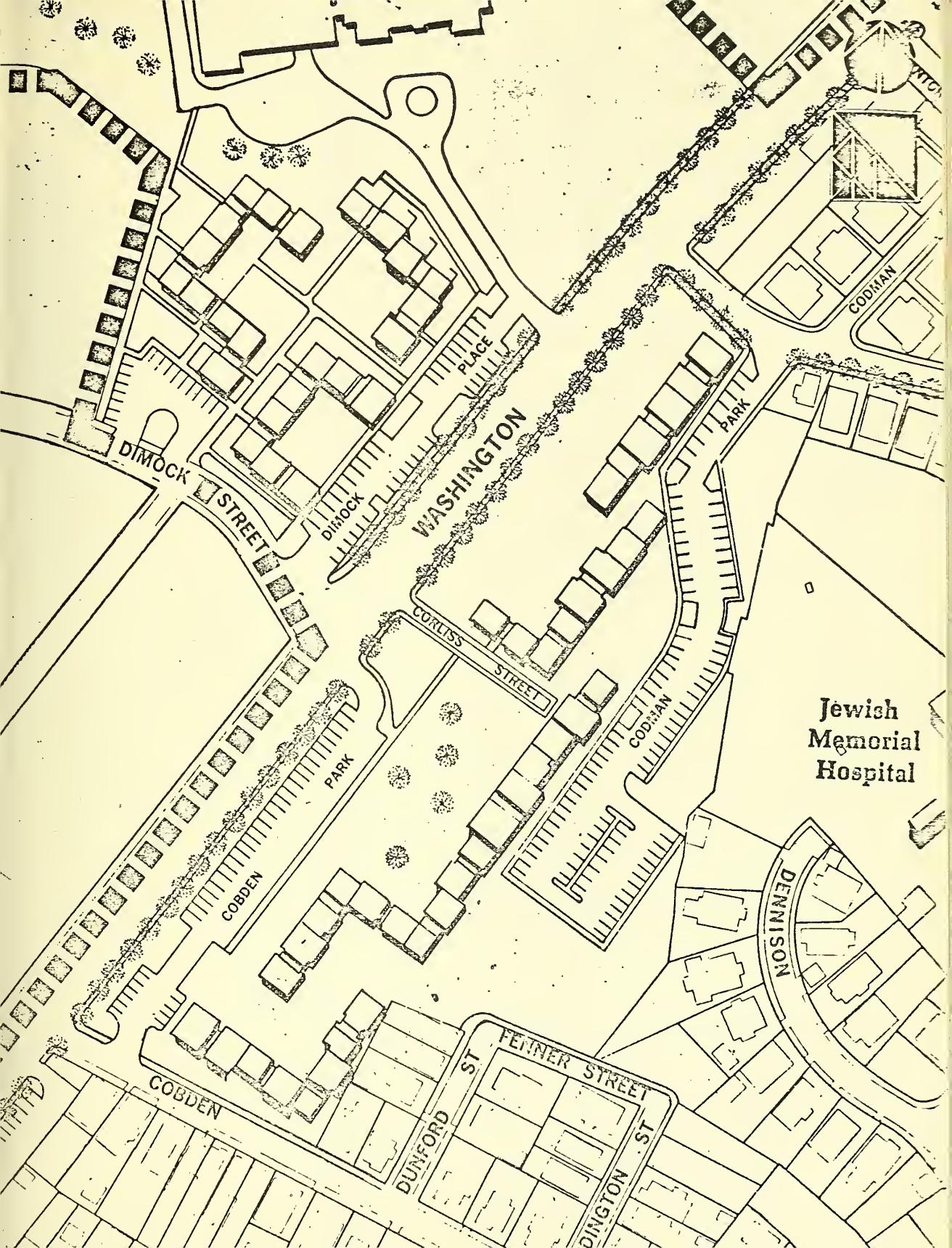
Academy II generally consists of three (3) story stacked flats with some of the units being stacked nine (9) high due to unusual site configurations. However, the longest walk up is two floors, due to the upper access level that occurs in these high rise sections. In these high rise sections, there are business and commercial developments on the ground floor. Those units on the ground level have private entrances, and those units in the higher levels (or lower) have entrances off of a common stairwell. These buildings use an unusual structural system: concrete bearing walls with precast concrete planks for flooring and roofing, gypsum interior partitions, and exterior walls with brick facing. There are some community facilities in this housing project other than the business and commercial uses. The site planning creates a variety of enclosed and semi-enclosed spaces.

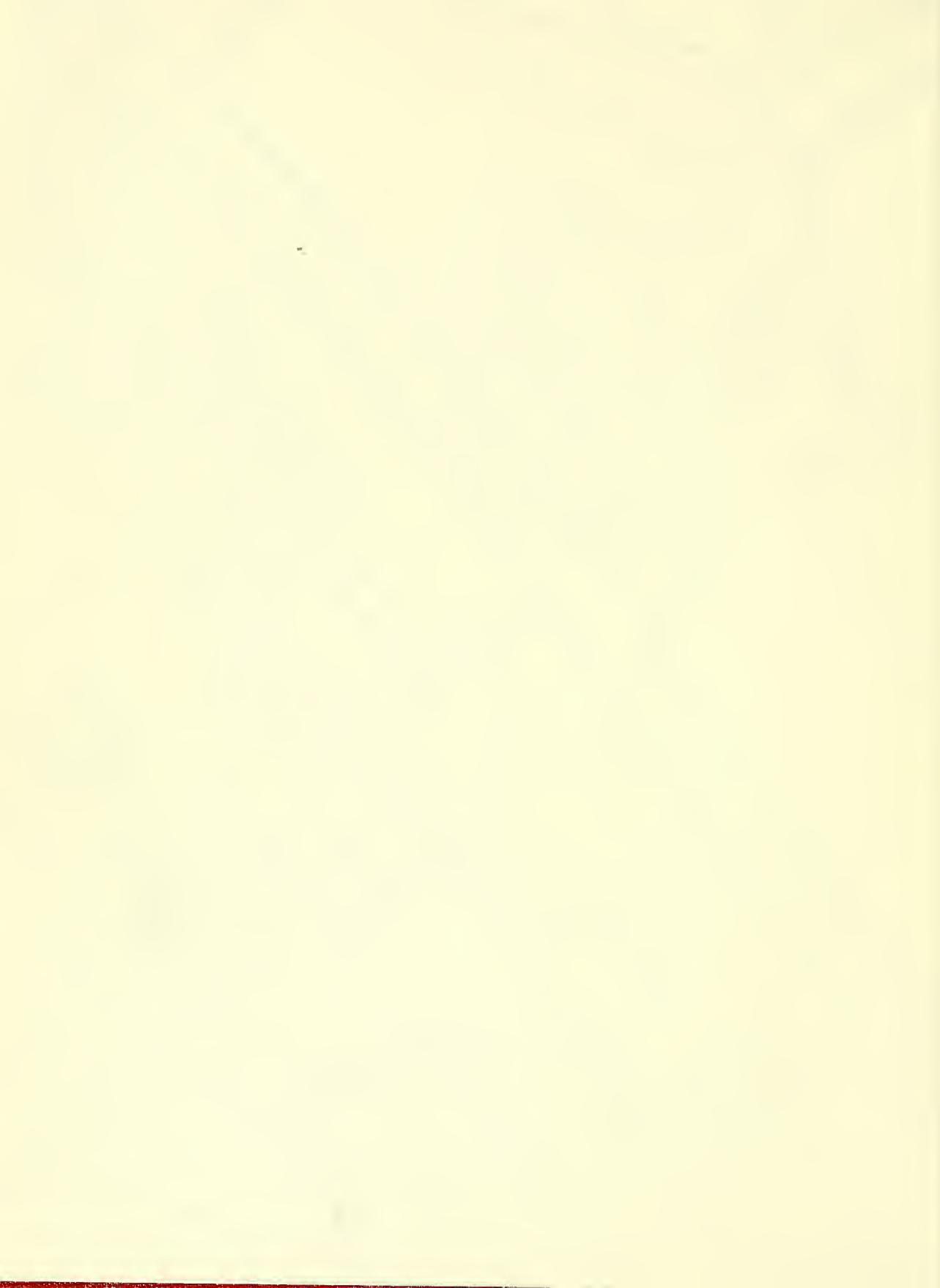
DEMOGRAPHIC INFORMATION

In Academy II, 33 of the people interviewed were black with the remaining 5 being white. Of this, 29 were women and 9 were men with most of the sample being in their twenties or thirties. Most of them had lived in Academy II from 1½ to 2 years. The incomes given ranged from less than \$5000 or from between \$9000 to \$11,000 per year with the most common income level being between \$5000 to \$7000. The range in family size is from 1 to 9 persons with 4 or 5 persons being the most common family size and the average number of children per family being 2.5. About 26 of the families interviewed had adult males in the household.

Academy II was unique in that it was developed around the idea of a coop where the tenants buy shares in the coop but do not actually buy their individual unit.

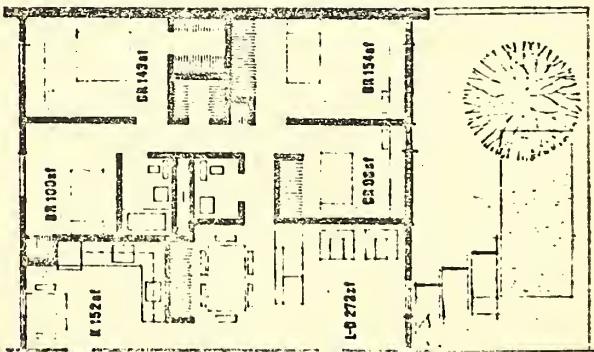
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Memorial
Hospital



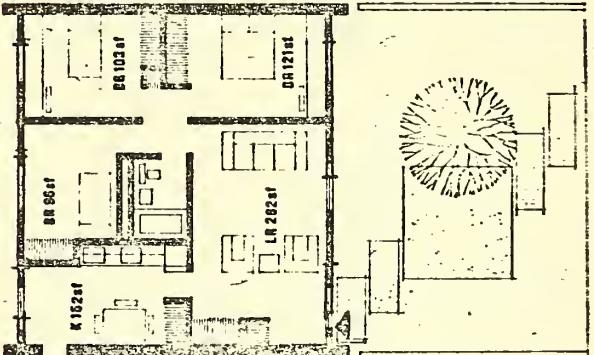


4 BEDROOM
UNIT

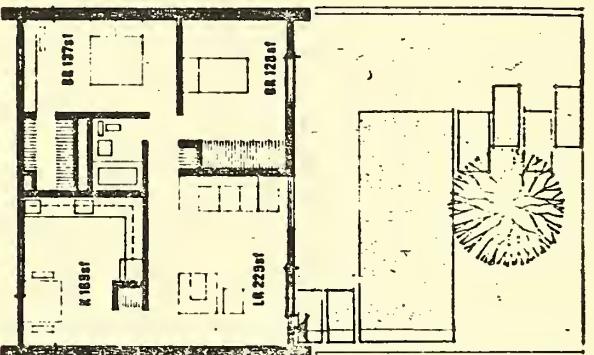
ACADEMY II



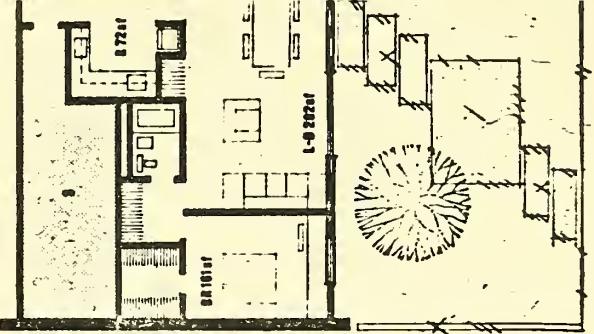
3 BEDROOM
UNIT



2 BEDROOM
UNIT



1 BEDROOM
UNIT



ACADEMY HOMES (Section III. Parcel B-3)
 Parcels E2a, E2b (non evaluated)

1. Housing

1.1 Group System

Types

<u>Types</u>	<u>No. of Units</u>	<u>%</u>
A-3 Story Walk-up Building	12	
B-4 Story Walk-up Building	48	
C-5 Story Walk-up Building	85	
D-6 Story Walk-up Building	11	
F-8 Story Walk-up Building	8	
F-9 Story Walk-up Building	45	
TOTAL	209	

1.2 Types of dwelling:

<u>Nomenclature</u>	<u>Type</u>	<u>Area/Unit</u>	<u>No. Units</u>	<u>%</u>
A	1 BR Flat apartment	730 sq.'	18	8.6
	2 BR Flat apartment	791 sq.'		
		915 sq.'	56	27.1
	3 BR Flat apartment	1005 sq.'	74	36.2
	4 BR Flat apartment	1273 sq.'	58	28.1
	TOTAL	4714 sq.'	206	100.0

2. Community Facilities

2.1 Services

<u>Type</u>	<u>No. of units</u>
Storage (for each unit)	yes 127
Laundry (central)	yes 2
Waste	yes 4

2.2 Educational

Child Care	no	x
Nursery School	no	x
Kindergarten	no	x
Elementary	no	x

2.3 Recreational

Park	yes	1
Playground	yes	1
Meeting Room (in building 3)	yes	2
Sports Field	no	x

* 2.4 Commercial (in building 5)

Food Store	yes	1
Drug Store	x	x
Snack Bar & Cafeteria	x	x
Hardware Store	x	x
Bank Office	x	x

(*to be specified)

2.5 Movement

Public Transportation Station (rapid transit stop)	2
Private Transportation	
Parking Spaces	230

3. Use of Land

3.1 Total Site Area	352.787 sq.'	8 acres	100%
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3.2 Residential Floor Area	55.802 sq.'
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3.2 Residential Floor Area	55.802 sq.'	1.3 acres	16%
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3.3 Community Facilities Floor Area

Services	x	x	x
Educational	x	x	x
Recreational Covered	5.478 sq.'	0.13 acres	1.6%
Commercial (in housing)	x	x	x
Movement	x	x	x

3.4 Open Space

Private Residential Backyard	x	x	x
Semi-private Residential Front Yard	x	x	x
Public Open Spaces, Court Yard	x	x	x
Parks & Playground	82.784	2 acres	24%
Parking & Internal Roads	74.592	1.7 acres	21%
Other Uses Non-Defined	136.131	3.1 acres	37.4

The clearest statement that first emerges from the tabulation of our survey results, by project, is that the residents of Academy II are strongly dissatisfied with their development. There are three direct "user-satisfaction" questions in the survey, and Academy is the only development that receives in each question a negative evaluation.

In Question II-18, 17 of the tenants rated Academy poor. No other project had proportionately that many poor ratings. Academy was also the only development to have no excellent ratings, and had the lowest percentage rating the project good.

Half of the people said that they were not getting their money's worth in renting apartments in Academy. Part of the problem here could have been that the people did not understand how the Coop System was supposed to work.

Finally, Academy was by far the only project where most of the respondents said that their housing was worse than they had anticipated -- 24 out of 38. The answers to these questions stood out so sharply from the answers given in other developments that we thought it necessary to do a special examination of all

the questionnaires from Academy and of our own observations to find an explanation for the residents' strong indictment of Academy.

First we shall present the data collected from Academy showing the good and bad points which were brought out by the survey. But at the same time we shall present one hypothesis which came from our observations: that there is a great difference between the upper and lower sections of Academy. These impressions are recorded elsewhere, but they pertain to site design and the grouping of apartments, for the units are the same throughout Academy. Essentially, we felt that due to its lower density and its more varied, attractive site, the lower section of Academy, on the west side of Washington Street, was a much nicer place to live than the upper.

When we saw how dissatisfied the people in Academy seemed to be, we hypothesized that this represented only the opinion of those living in the upper section, and probably confirmed our assessment of the differences between the two sections. This hypothesis was not born out by the data, however -- there is very little discrepancy between the responses of the upper and lower area. Half of the people in the lower section

rated Academy poor, and half said it was worse than they had expected. But we shall present some responses for all of Academy and then for the lower section separately to show that the tenants were not so divided. And we shall indicate the answers which seem most accountable for the low overall evaluation.

I-1 The kitchen and living room were large enough in Academy, but this was the only project where many people (34%) did not have enough space in the master bedroom and, as in the other projects, did not think the third and fourth bedrooms were large enough.

I-4 Many people in Academy do have outside storage space, large storage rooms, but this is only true in the upper section. There is no extra space for the lower area which is one factor making that section seem worse than the whole project.

I-5 Academy was the only project where many of the respondents did not like the room arrangement; it was

higher in the lower section. The main problems are the kitchen entrance and the heavy traffic through the living room.

I-6,7 Consequently Academy was almost unanimous (as were the other projects) in wanting an entry hall and was the only project where most of the people would like their living^{room} more separate from the rest of the house. This is the first indication of a problem which we noticed when we first saw the working drawings of Academy - that all traffic in the apartments passes through the living room. It is too much the focal point of circulation. This is a specific design problem which was widely reported in Academy.

I-13 Academy reported the highest percentage of mechanical troubles for everything except doors and garbage disposal.

I-14 Academy had the highest percentage of people who do not use the central laundry though they do not have their own washers, perhaps indicating the greatest dissatisfaction with the provided laundry facility. Most

of the people interviewed in the lower section, however, do use their central facility. The laundry of the upper section is inadequate for the number of families and is inconvenient for many units.

I-16 Academy also had the greatest proportion of people who do not like the location of the trash cans. Primarily they want them to be located closer to the buildings. This is a problem which was strongly supported by our observations. It is evident throughout the site that the dumpsters do not adequately take care of the garbage.

I-18 Academy is the only BRA project we visited that does not have private open space for the residents, so it is significant to note that the respondents clearly felt that it was important for families to have some private space. This may help to explain the larger level of dissatisfaction in Academy II.

I-24 Also, most of the people said that they would prefer living in a row house, which might indicate some dissatisfaction with the apartments in which they live.

I-25 And they definitely felt that their place was more

like an apartment than a single family house.

II-6 Academy was the only project where most of the people did not think that the site was well designed. The response was a bit more positive in the lower section, but generally people did not like the site.

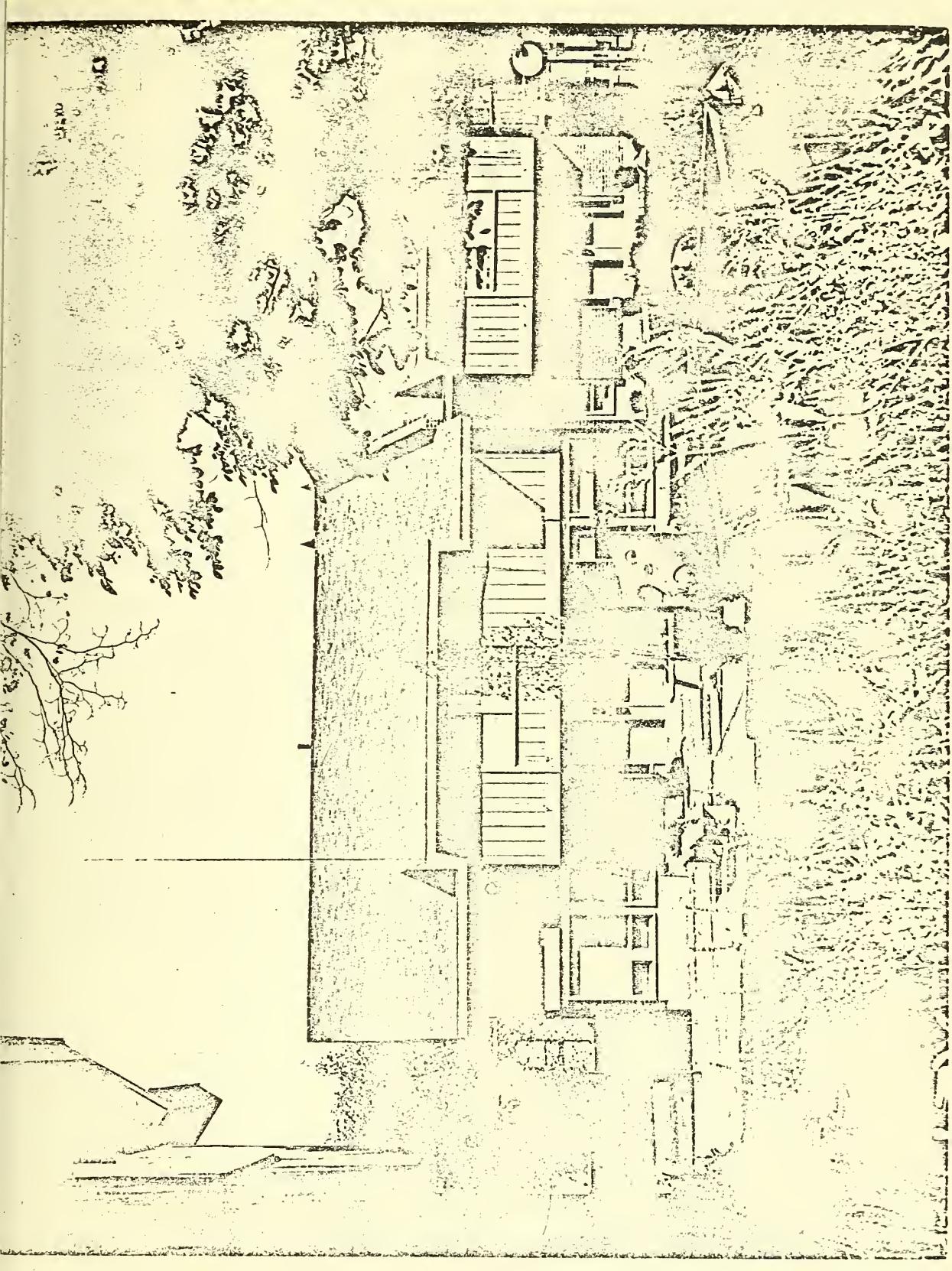
II-11 Academy had the highest proportion (50%) who said that they did not feel safe; and it was especially high in the lower section (70%).

II-13 Also, about half the people did not feel there was a community in the development, with 70% of the people in the lower area saying there was not a community.

IV-12 Finally, Academy had the largest proportion of people who planned to move soon.

The responses to these questions give some explanation for the strongly negative response from Academy to the "user-satisfaction" questions; they reveal some important problems in the project which other side comments and our observations supported.





CHARLAME II

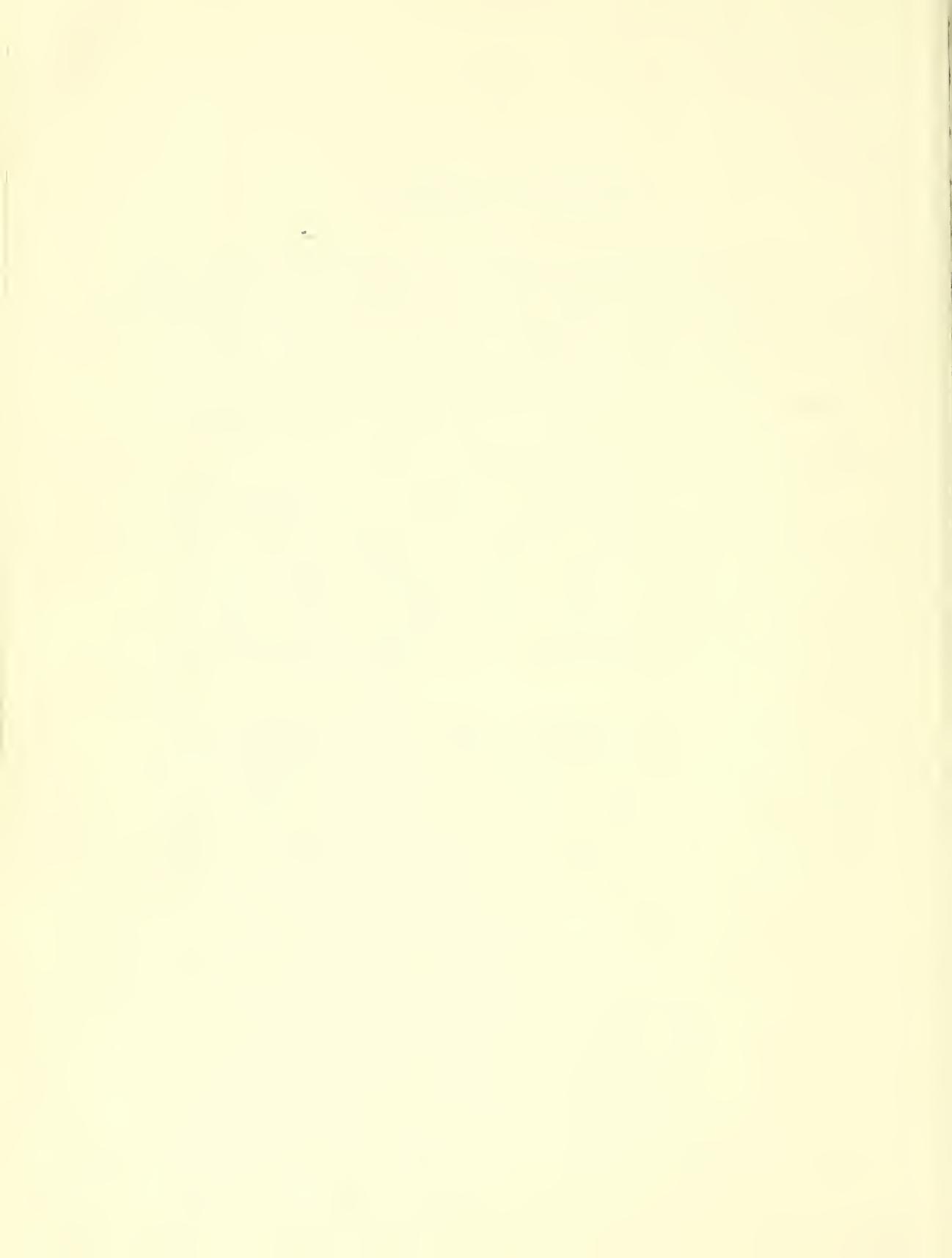
Charlame II consists of two story and row houses with private ground level entries. These houses are wood frame with brick on the ground floor and masonry walls separating every two units. The basic unit organization has the living room, with major entry, oriented toward the action; the public spaces on the first floor and the private spaces on the second floor. All bathrooms are on the second floor, and some of the units have basements. The site planning had two basic concerns: presenting a consistent end wall facing on Washington Boulevard, as in Charlame I, and organizing the housing to produce a variety of private open spaces within the housing. The units have provisions for washers but not for dryers.

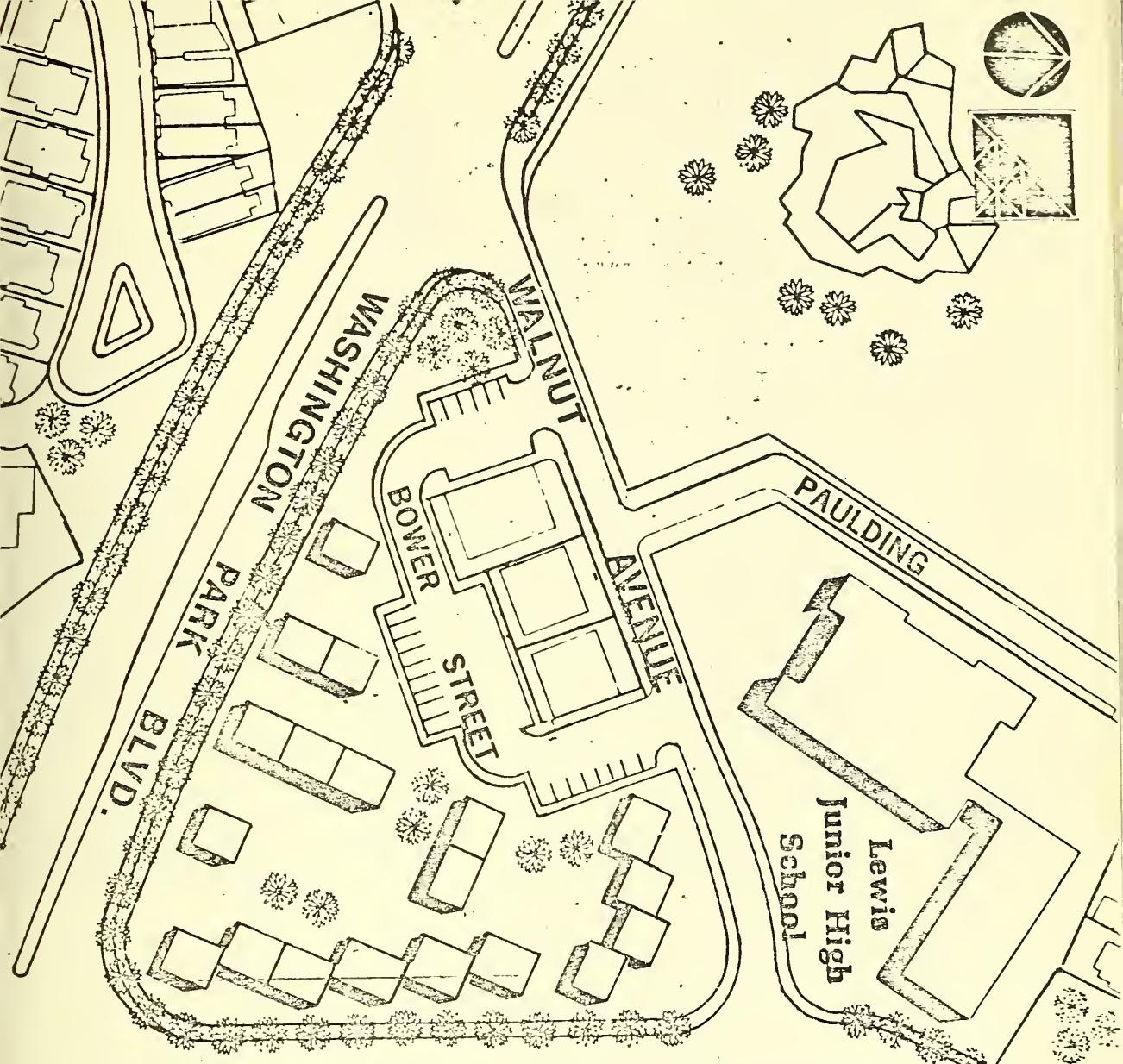
DEMOGRAPHIC INFORMATION

All of the people interviewed in Charlame II were black women, most of whom were in their 30's and 40's and had lived in the project between 1½ and 2 years. Of those who gave incomes, the range was from less than \$5000 to \$7000 with the most common income being under \$5000.

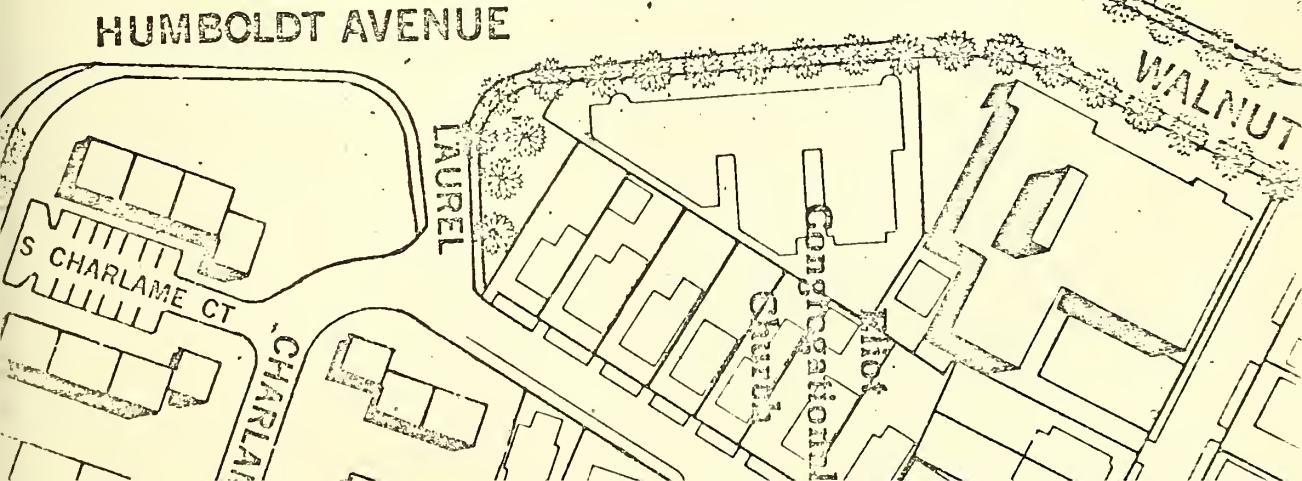
The range in family size was from 3 to 8 people with most common family size being 6 or 7 people with average 4.3 children per household. Charlame also had a very low percentage of households with an adult male present, less than half.

Charlame II was unique in that it was a total rent subsidy project with all expenses being paid except the telephone.

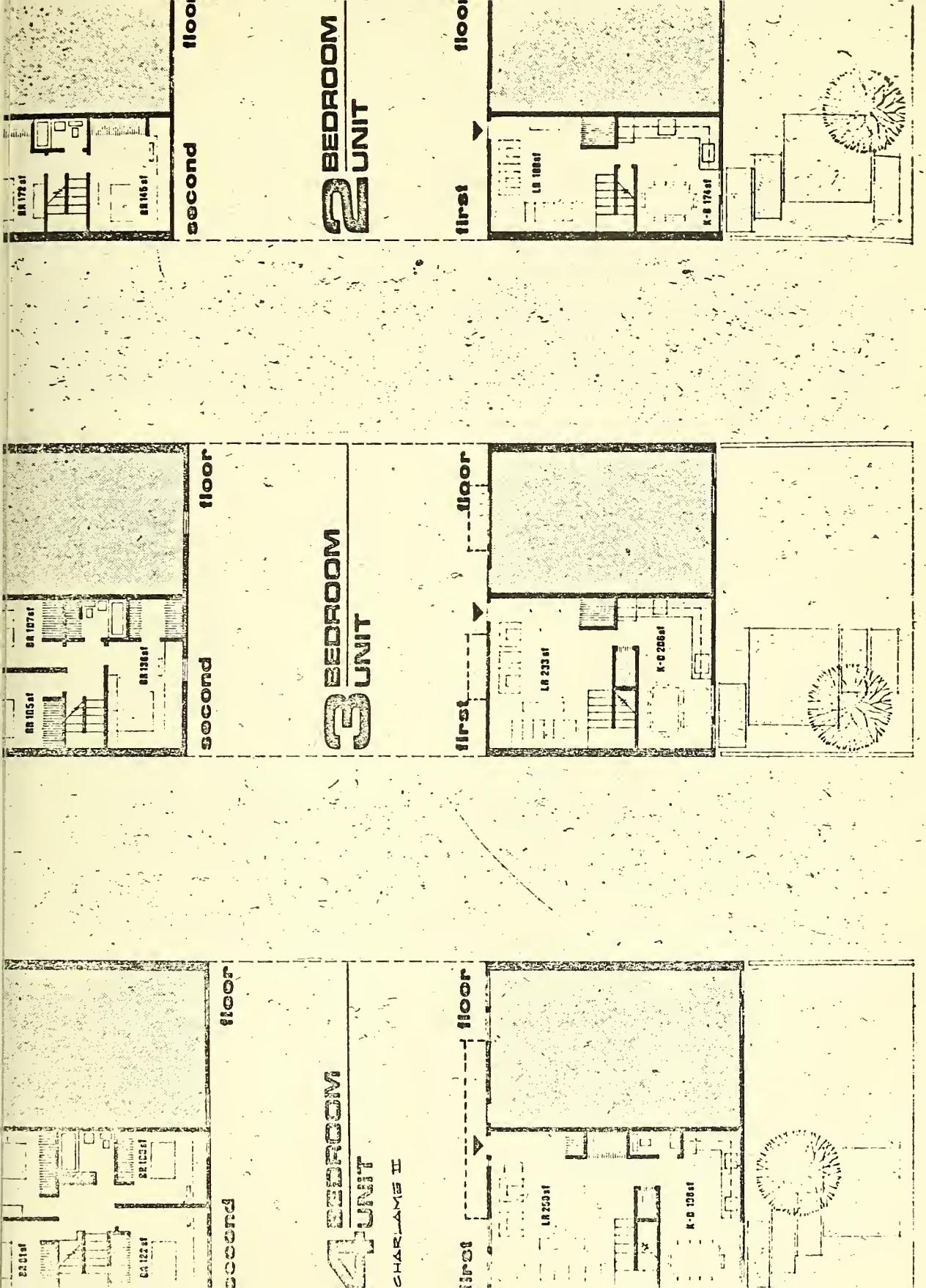




HUMBOLDT AVENUE







CHARLAME II

1. Housing

1.1 Grouping System

Type

No. Units

Duplex Row House

38

1.2 Types of Dwellings

Nomenclature Type

Area/Unit

No. Units

%

2 B-R Duplex Apt.	976 sq. ft.	8	21%
3 B-R Duplex Apt.	1455 sq. ft.	12	32
4 B-R Duplex Apt.	1698 sq. ft.	18	47
		38	100

2. Community Facilities

2.1 Services:

Type

Storage

no

x

Laundry

yes

1

Waste Disposal

no

2.2 Educational

Child Care

no

x

Nursery School

no

x

Kindergarten

no

x

Elementary School

no

x

2.3 Recreational

Park

no

x

Playground, Courtyard

yes

2

Meeting Room

no

x

Sports Field

no

x

2.4 Commercial

Food Store

no

x

Drug Store

no

x

Snack Bar & Cafeteria

no

x

Hardware Shop

no

x

Bank Office

no

x

2.5 Movement

Public Transportation Station (bus stop)	2
Private Transportation Parking Spaces	41

3. Use of Land

3.1 Total Site Area	104.701 sq. ft.	2.4 Acre	100%
3.2 Resident Floor Area Row Houses	22.372 sq. ft.	0.5 Acre	21%
3.3 Community Fac. Floor Area			
Services	x	x	x
Educational	x	x	x
Recreational	x	x	x
Commerical	x	x	x
Movement	x	x	x
3.4 Open Space	84.374 sq. ft.	1.9 Acre	79%
Private Res. Backyard	20.000 sq. ft.	0.5	19%
Semi-Private Res.			
Frontyard	7.500 sq. ft.	0.16	7%
Public Open Spaces			
Courtyard &			
Playground	10.800 sq. ft.	0.25	10%
Parking & Internal			
Roads	19.647 sq. ft.	0.38	16%
Other Uses Non-Defined	24.427 sq. ft.	0.54	23%

One of the most interesting indications that emerges from the tabulation of our survey results, by project, is that the tenants of Charlame II seem to be well satisfied with their development. There are three direct "user-satisfaction" questions in the survey, and Charlame II has received a positive response on each. In the first of these, Question II-25, all of the people interviewed stated that they were getting their money's worth in renting their unit. Although the people seemed generally satisfied with this development, the results of this question are misleading, because this was the only project in the study that had a complete rent subsidy program which ^{paid} payed most of the rent for each family. Still, the results of this question do indicate some satisfaction with the unit.

In Question II-18, Charlame II had 3 people who rated the project excellent, 4 people who rated good, 4 people who rated fair, and 1 person who rated it poor. Generally, the people seemed pleased with the development.

In Question IV-13, 8 of the people interviewed stated that the apartments were better than they had expected.

another 2 said that the apartments were what they expected, and 2 more said that they were worse. Again a large majority of people were generally satisfied with their unit.

Finally, Question II-11, indicated that 7 of the people felt that they were safe and secure in this development. This response, of approximately half of the people in each development feeling safe and secure was consistant in all but one of the developments studied: Brandywine Village where most of the people said that they felt safe and secure. This is an important item that needs more study before useful interpretations can be made.

Now an examination of some of the remaining questions may help to explain the favorable responses that the people gave to the previous questions.

I-1 All of the people interviewed thought that the kitchen and the living room were large enough, but 3 of 12 people said that the second bedroom was too small and 4 of 11 people said that the third bedroom was too small. These trends were generally true of all the housing developments, but Charlame was the only one that had unanimous agreement on the size of the kitchen and the living room.

I-2 Here 10 of 12 people interviewed said that they would not like to change the spatial allocation within their unit. This was the highest percentage of any of the developments and seems to be an endorsement of the Charlame II units.

I-4 Like most of the other developments, Charlame II did not have enough storage for items that could not be stored in the home. 9 of 12 people said that they did not have this type of storage space.

I-5 Again 9 of 12 people interviewed said that they liked their room arrangement. For those who did not like the arrangement there was no specific criticism.

I-6a On the question of whether or not they would like an entry hall, the people were evenly divided, 6 for and 6 against. This was unusual because in all of the other developments, with those that had entry halls and those that did not have entry halls, people clearly thought an entry hall would be desirable. How this can be explained is not sure.

I-13 In each case, the majority of people in Charlame II

had no trouble with mechanical equipment.

I-14 All of the people interviewed said that they did not use the central laundry facility, but used their own washer instead. FHA standards do not permit washer and dryer, but the BRA had insisted that plumbing for washer and dryer be installed and washers had been installed in the units.

I-15 A majority of the people indicated that they wanted to buy dryers also.

I-16 11 of the people said that they either liked the location of the trash can or thought it was OK.

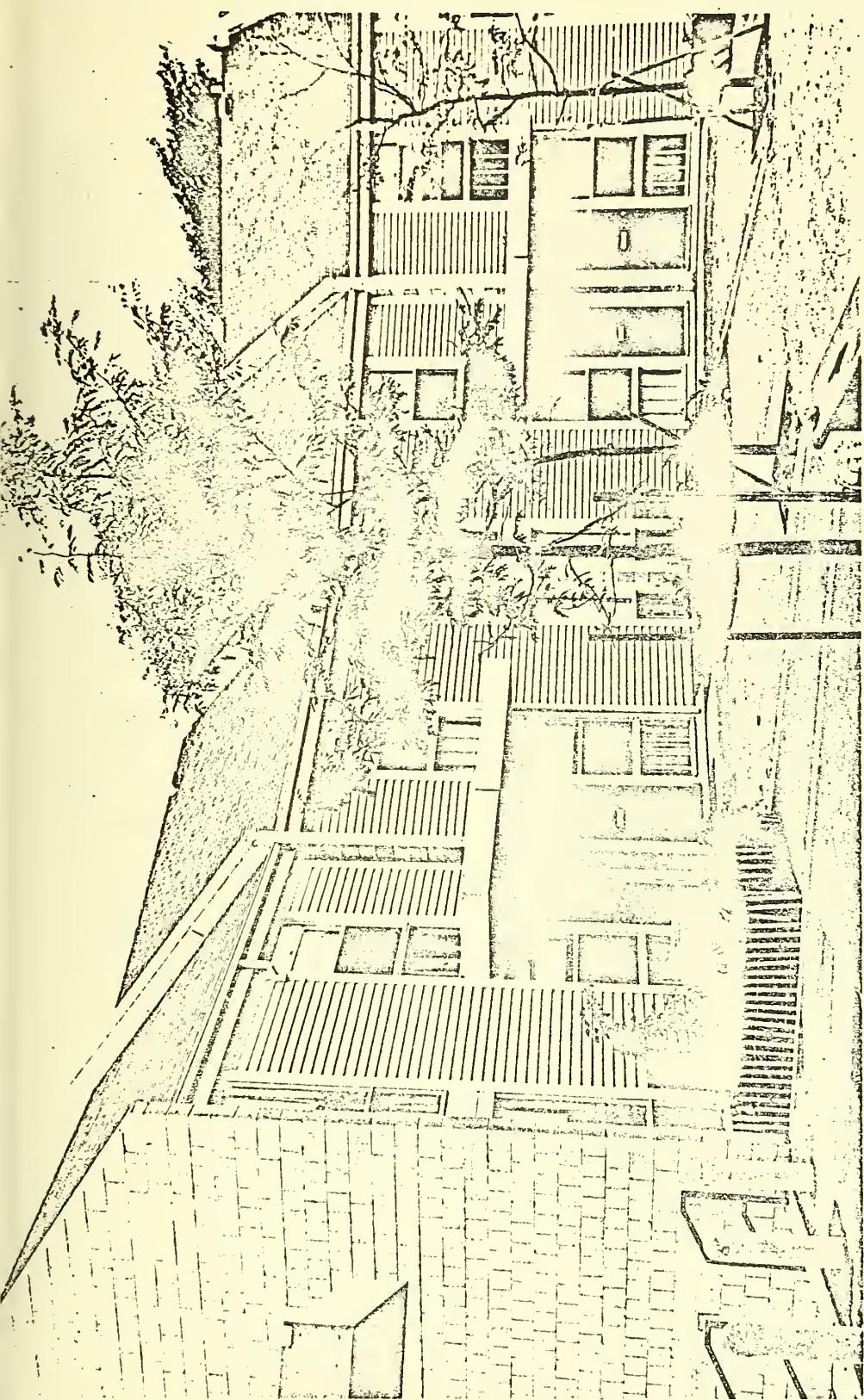
I-17 10 of the people said that they would not redesign their unit.

I-18 All of the people said that they thought it was important to have a private yard, and all had "large" private yards.

I-24a A large majority of the people in all the developments including 11 in Charlame II said that they preferred row houses. This is what Charlame II is: row houses.

I-25 11 felt that their unit was more like a single family dwelling than an apartment.

IV-12 4 of the people wanted to stay as long as they can, another 4 are indefinite as to how long they plan to stay, 2 want to stay a long time, and another 2 either want to move soon or in less than a year. Again, a large majority of people seem to like or at least want to stay in Charlame II.



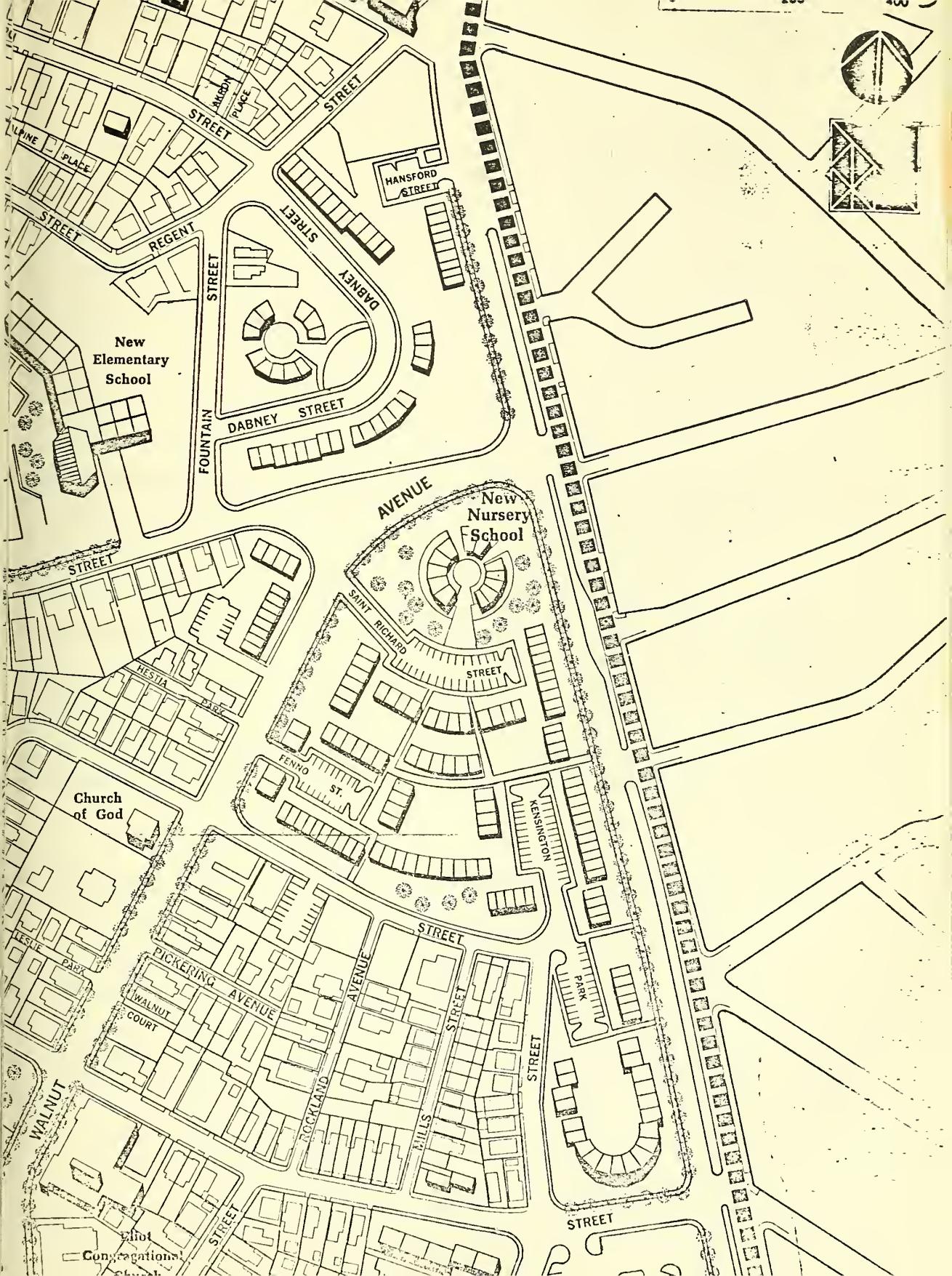
WARREN GARDENS

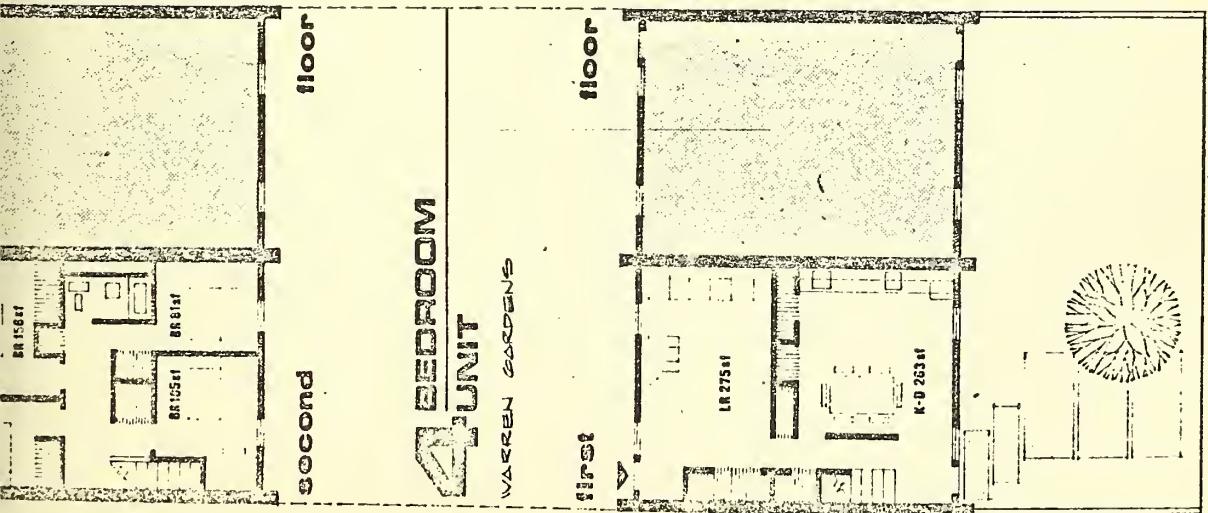
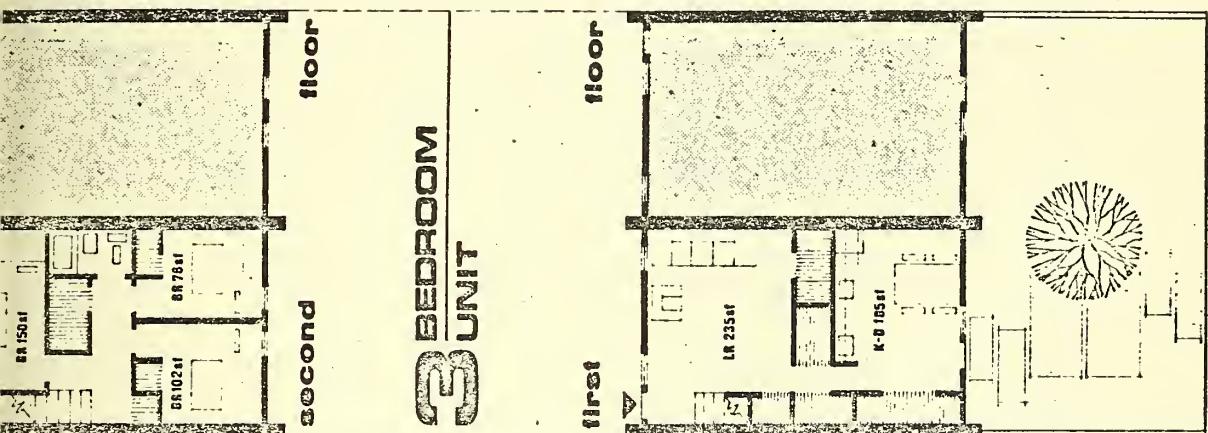
Warren Gardens consists of two and three story, concrete block and frame row houses with ground level, private entrances that open into the kitchen-dining room area. The basic unit organization has the public spaces on the ground level and the private spaces on the second and third levels. There are some interesting interior spaces created by the third story shed roof and windows. The kitchens are oriented toward the action, and all the bathrooms are on the second floor. There is a dryer and plumbing for a washer. The site planning has a definite internal focus which creates various enclosed spaces as well as turning its back on anything outside the housing development.

DEMOGRAPHIC INFORMATION

In Warren Gardens 100% of the people interviewed were black. Of these 25% were women and 2% were men with the majority of the sample being in their 20's. Almost all of the people had lived in Warren Gardens less than one year, with most people being there between six and nine months. The incomes given ranged from less than \$5000.00 to \$11,000.00 per year with most incomes falling in the \$5000 to \$9000 range. The range in family size is from 2 to 7 persons with 4 persons being the most common family size and the average number of children per family being 2.2 About half of the families interviewed had an adult male in the household.







BARREN GARDENS

1. Housing

1.1 Grouping System

Types

		<u>No. of Units</u>
A-Row	Linear 2 Floor Houses	34
B-Row	Fan 2 Floor Houses	38
C-Row	Linear 2½ Floor Houses	108
D-Row	Fan 2½ Floor Houses	12
E-Row	Linear Flat Apartments	<u>36</u>
	TOTAL	228

1.2 Types of Dwellings:

<u>Nomenclature</u>	<u>Type</u>	<u>Area/Unit</u>	<u>No. Units</u>	<u>%</u>
A	3 BR 2 Floor House	1.160 sq. ft.	14	
B	3 BR 2 Floor House	1.228 sq. ft.	10	
C	3 BR 2 Floor House	1.198 sq. ft.	8	
D	3 BR 2 Floor House	1.320 sq. ft.	20	
E	3 BR 2½ Floor House	.922 sq. ft.	72	
F	3 BR 2½ Floor House	1.160 sq. ft.	10	
G	3 BR 2 Floor House	1.160 sq. ft.	8	
			(142)	62%
H	4 BR 2 Floor House	1,406 sq. ft.	12	
I	4 BR 2½ Floor House	1.160 sq. ft.	26	
J	4 BR 2½ Floor House	1.188 sq. ft.	12	
			(50)	22%
I', J'	Efficiency Apartment	520 sq. ft.	22	
I", J"	1 BR Apartment	640 sq. ft.	14	
			(36)	16%
	TOTAL		228	100%

2. Community Facilities

2.1 Services

<u>Type</u>	<u>No. of Units</u>
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Storage	yes	70
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Laundry	
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Waste Disposal	no	x
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2.2 Educational

Child Care	no	x
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Nursery School	no	reserved area
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Kindergarten	no	x
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Elementary School	no	x
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2.3 Recreational

Park	yes	1
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Court Yard	yes	9
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2.4 Commercial

Food Store	no	x
Drug Store	no	x
Snack Bar & Cafeteria	no	x
Hardware Shop	no	x
Bank Office	no	x

2.5 Movement

<u>Type</u>	<u>No. Units</u>
Public Transportation Station	
Private Transportation	
Parking Spaces	214

Use of Land

3.1 Total Site Area

Parcel C-1A	485.250 sq. ft.		
Parcel B-2	152.00 sq. ft.		
Parcel F-4	32.00 sq. ft.	642.605 sq. ft.	
		14.7 acres	
		100 %	

3.2 Residential Floor Area

Row Houses	107,107 sq. ft.	2.4 acres	17%
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3.3 Community Facilities Floor Area

Services	integrated with housing
Educational	reserved open space
Recreational	no
Commercial	no
Movement	no

3.4 Open Space

Private Resident Backyard	53.553 sq. ft.	1.2 acres	8%
Semi-Private Resid. Front- yard	74.402 sq. ft.	1.7 acres	11%

Public Open Spaces

(Parks & Playgrounds)	37. 400 sq. ft.	.9 acres	6%
Parking & Internal			

Roads	69.800 sq. ft.	1.6 acres	11%
Reserved areas for community facilities,			

N.S.	50.000 sq. ft.	1.1 acres	8%
Other uses & non defined areas	250.742	5.8 acres	39%

It was not clear from the tabulation of our survey results, by project, that the residents of Warren Gardens were either very satisfied or very dissatisfied with their development. The three direct "user-satisfaction" questions give the impression that the people felt more or less neutral about the development.

In Question I-25, 17 of the 27 people interviewed said that they were not getting their money's worth. This can be partially explained by the fact that people in Warren Gardens pay higher rents than people in the other developments. Still it is a clear indication of the people's dissatisfaction with their units.

In Question II-18, all things considered, how would you rate this project. 16 of the 27 people interviewed rated the project as fair. In this question, there were five categories with fair being the middle category which was supposed to represent a neutral response. 8 of the remaining 11 people rated the project as good which was clearly a positive response, giving the overall rating as somewhat more positive than neutral.

In Question IV-13, is this house/apartment better or worse than you anticipated, 13 of the 27 people stated that

they considered it better which is clearly a positive response to the housing; 5 said it was what they expected, 7 said it was worse. This is a more or less neutral response. Two said that they didn't know.

If we include Question II-11 in the "user-satisfaction" group, it may help to give a clearer indication about tenant response to the development. In this question, do you feel safe and secure living in this housing, 15 of the 27 interviewed answered yes, with the remaining 12 answering no. Again, this is a slightly positive response to this question but very close to being neutral.

Now an examination of the remaining questions may help to explain the relatively neutral response to Warren Gardens.

I-1 The kitchen, livingroom, and master bedroom seem to be large enough. However, the second, third, and fourth bedrooms as well as the bathroom seemed to be too small to meet the needs of many of the people. This seems to indicate that part of the dissatisfaction could stem from inadequate room size.

I-2a Most of the people seemed satisfied with the present spatial allocation, as the 19 no answers to 8 yes answers indicated in this question. Here then is a clear indication (if the question was understood) of a positive response to the housing.

I-3 Here the bathroom shows up as a problem again; this time because of inadequate storage space.

I-6a Warren Gardens was the only development that seems to have some units with entry hall and some without. However, in both cases there was a clear indication that the people felt an entry hall necessary. For those who do not have one, this could have been a source of dissatisfaction.

I-14 In this question, 25 of the 27 people interviewed said that they used their own washer and dryer rather than the central laundry facility. The convenience of having a place for this equipment as well as the necessary plumbing can be seen as a source of satisfaction.

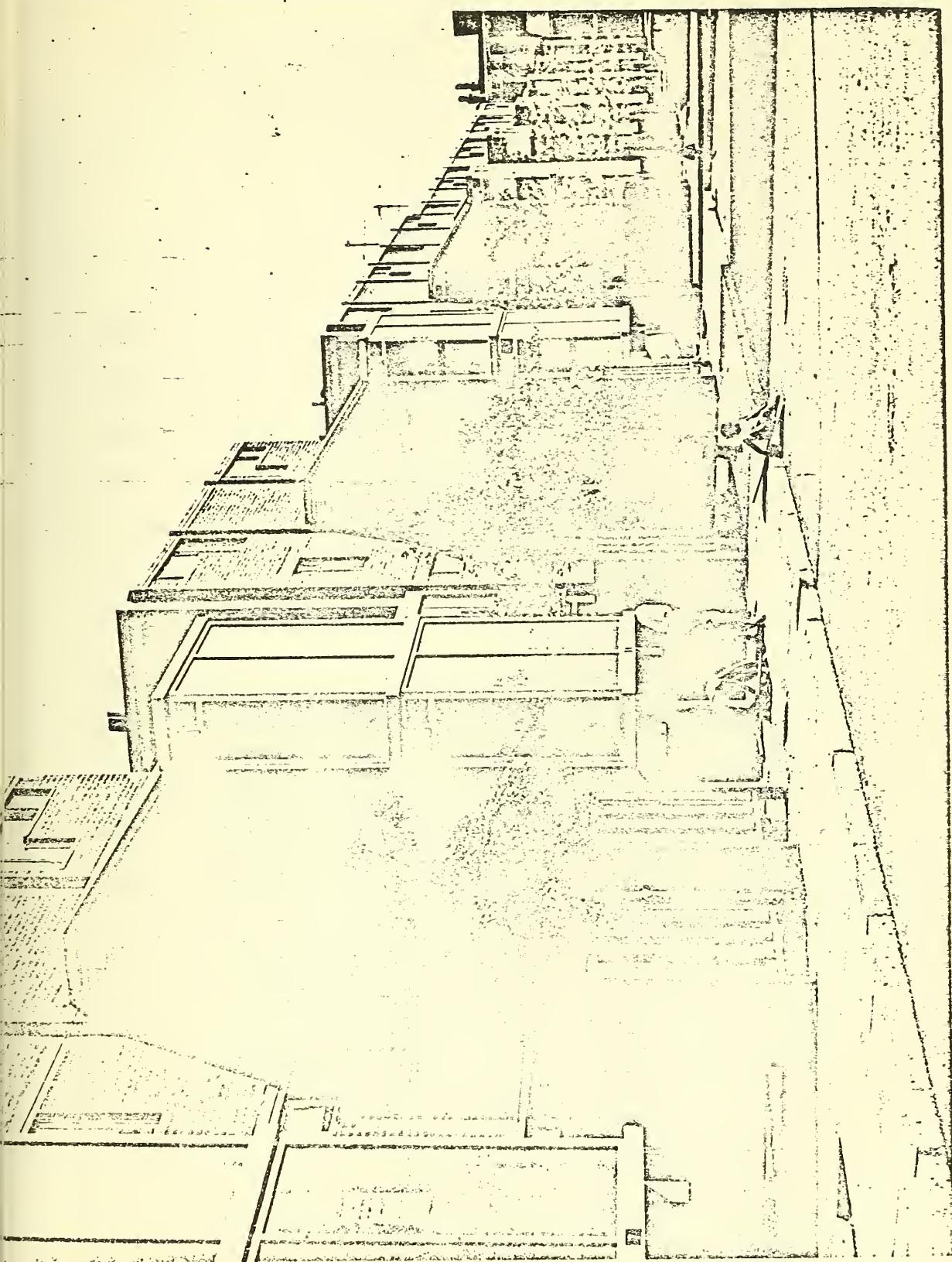
I-16 In the case of location of trash cans, 7 liked their

location; 8 thought the location was OK and 12 disliked their location. Here again is some indication of dissatisfaction.

I-20a Here a majority of 14 people thought that their private open space was not large enough for their families needs, 10 thought that it was large enough and 3 didn't have any private open space. This is again negative response.

I-23a In conjunction with Question I-20a, here the people interviewed indicated that they clearly thought that the fencing of their private open space was not satisfactory. Since private space was one of the things that many people thought very important, problems in this area could cause real dissatisfaction with the housing.

II-6 In contrast to the problems with the private open spaces, 21 of the 27 people said that they thought the outdoor areas other than the private open spaces were well designed.

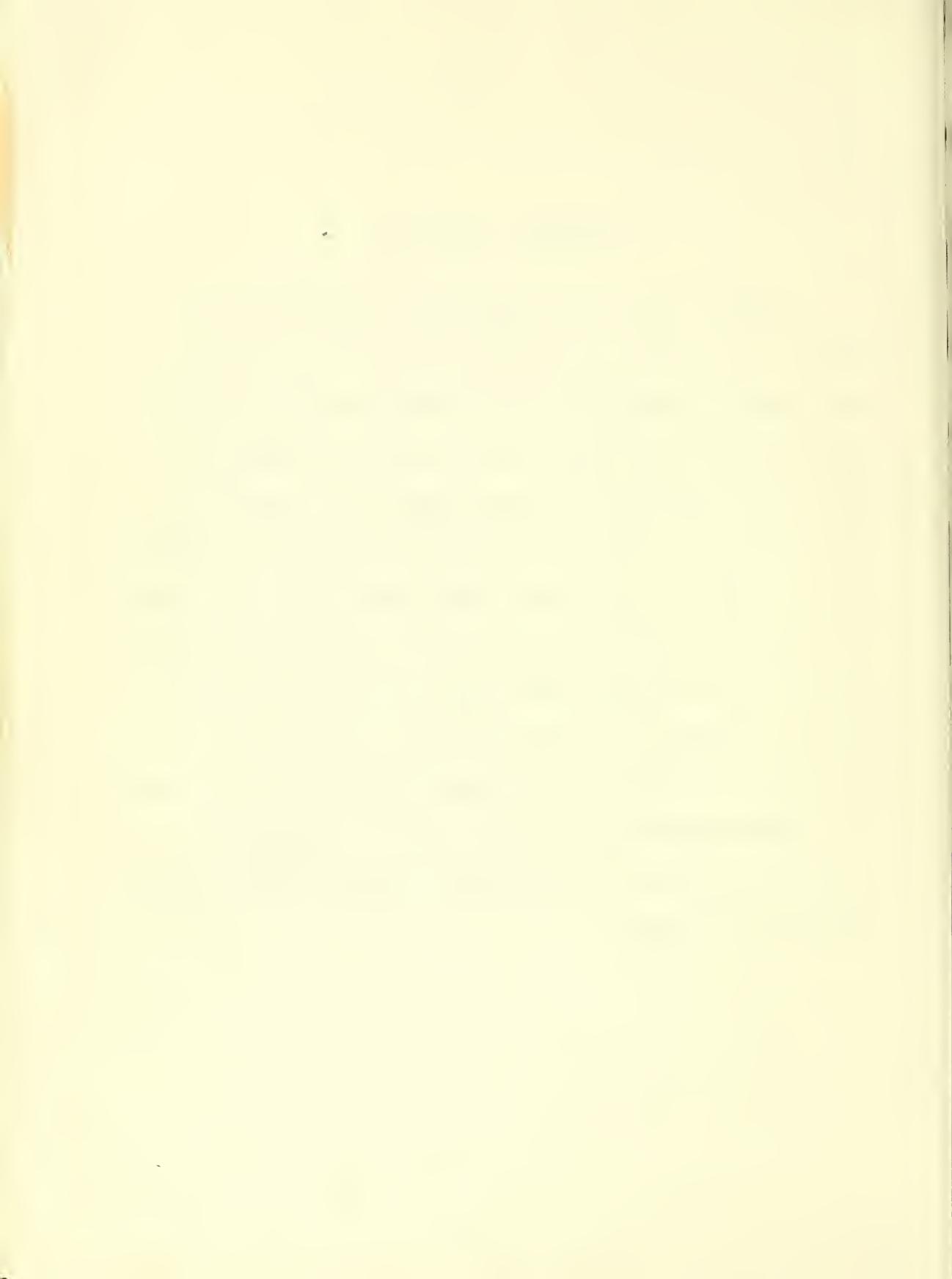


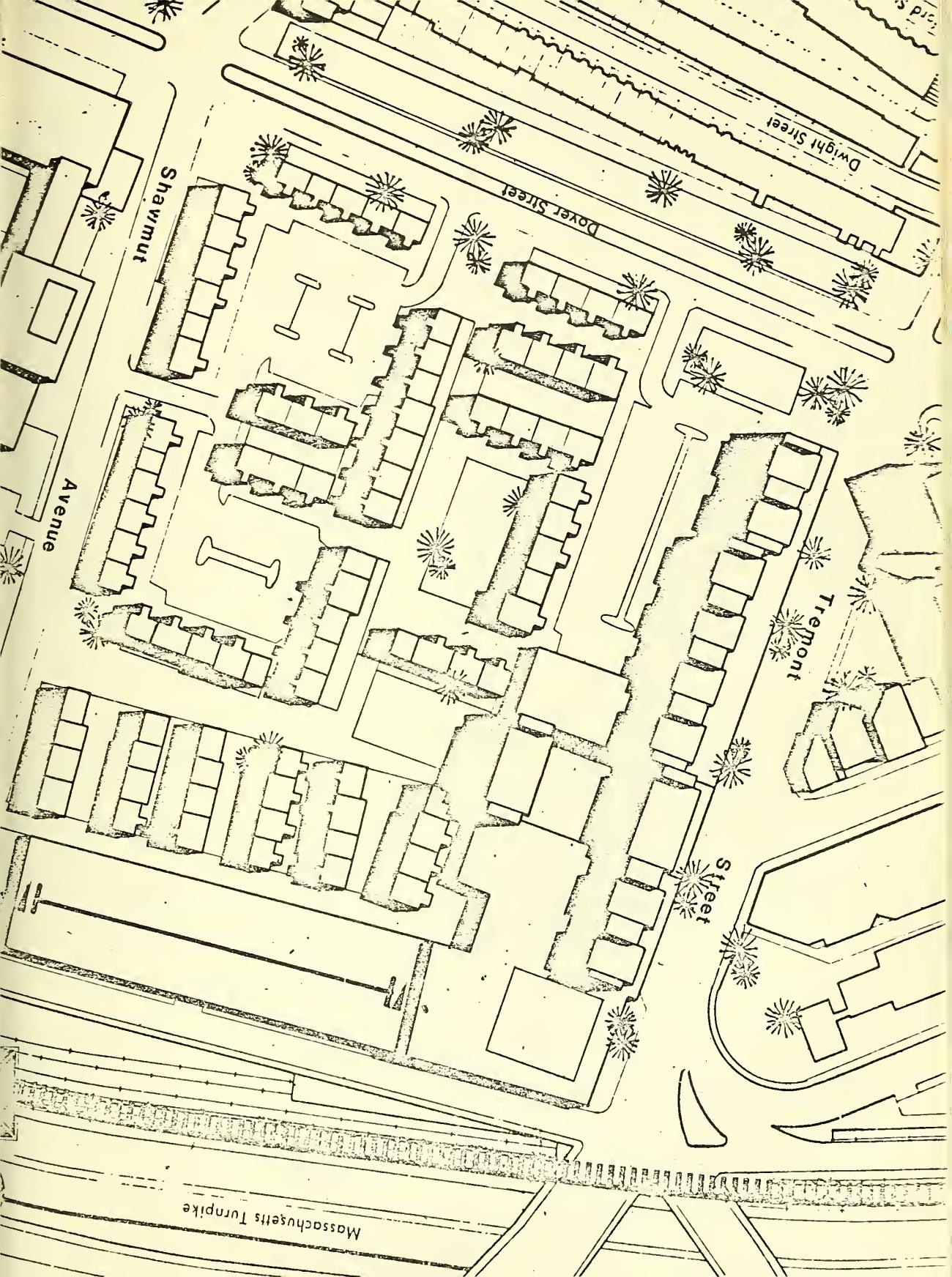
CASTLE SQUARE

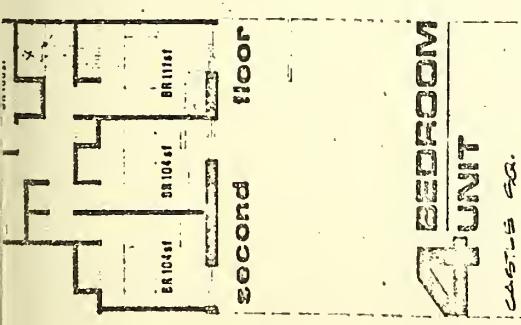
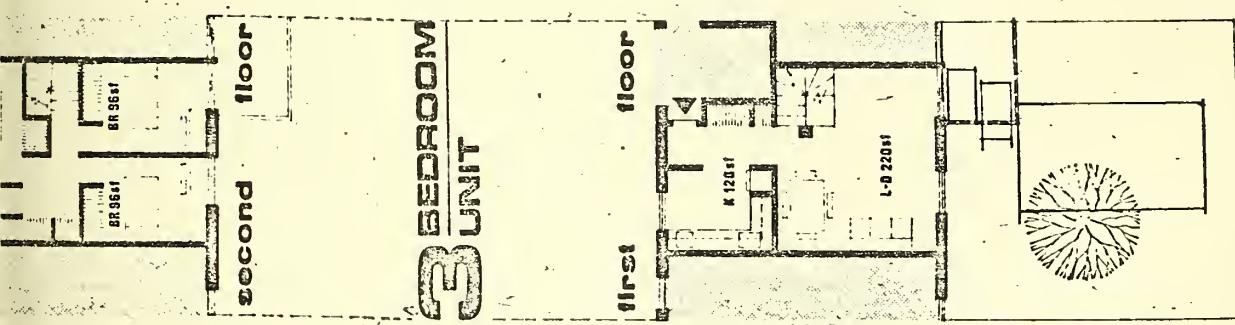
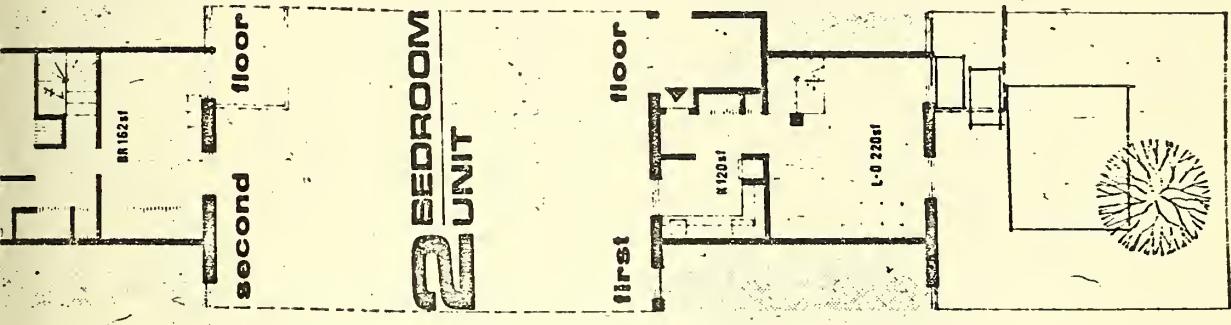
Castle Square consists of six seven-story apartment towers and several stacked duplex row house groups. The ground level units have private entrances, and pairs of the upper units share entrances off a stairway. This project makes provision for business and commercial activities on the ground floor. The construction is exposed concrete structure with brick infill and concrete block separating walls. These low units have no basements and no provisions for washer or dryer. They have their major entries by the kitchen. The units have balconies. The site planning is very tight and oriented toward preserving the existing streets and creating enclosed semi-private, outdoor spaces.

DEMOGRAPHIC INFORMATION

In Castle Square 15 of the people interviewed were black, 5 were white, 13 were Chinese, and the remaining 5 were Spanish speaking. Of this, 26 were women and 15 were men with most of the sample being in their 20's and 30's. Most of them had lived in Castle Square one to two years. The incomes given ranged from less than \$5000.00 to \$9000.00 per year with the most common income level being under \$5000. The range in family size was from 2 to 9 people with 4 or 5 persons being the most common family size and the average number of children per family being 3.0. About 29 of the families interviewed had an adult male in the household. Castle Square was unique in that it included large amounts of commercial and business space and elderly housing within the development.







CASTLE SQUARE

1. Housing

1.1 Grouping System

Types

No. of Dwelling Units

A- Six, Seven Story Towers

192

B- Stacked Duplex Row Houses

(To be evaluated)

308

1.2 Types of dwellings

<u>Nomenclature</u>	<u>Type</u>	<u>Area/Unit</u>	<u>No. Units</u>	<u>%</u>
A,B	2 BR Duplex Apt.	875 sq. ft.	111	36
D	3 BR Duplex Apt.	965 sq. ft.	132	42
C,E	4 BR Duplex Apt.	1110 sq. ft.	65	22
	TOTAL		308	100

2. Community Facilities

2.1 Services

<u>Type</u>	<u>No. Units</u>
Storage	x
*Laundry	?
Waste Disposal	?

*In the towers ground floor

2.2 Educational

Child Care	no	x
Nursery School	no	x
Kindergarten	no	x
Elementary School	no	x

2.3 Recreational

Park	no	x
Courtyard, Playground	yes	1
Meeting Room	yes	1
Sport Field	yes	2

2.4 Commercial *

Food Store	yes	1
Drug Store	yes	1
Snack Bar	yes	1
Hardware Shop	yes	2
Bank Office	yes	1

*Special commercial facilities to check in site

2.5 Movement

Public Transportation Station	1
Bus Stop	1
Private Transportation Parking Space	153

Use of Land

3.1 Total Site Area	290.000 sq. ft.	6.6 Acre	100%
3.2 Residential Floor Area	82.430 sq. ft.	1.9	28.5%
3.3 Community Facilities Floor Area			
*Services	x	x	x
*Educational	x	x	x
*Recreational	x	x	x
*Commercial	x	x	x
*Movement	x	x	x

*Outside the evaluated area

3.4 Open Space	201.570 sq. ft.	3.3 Acre	71.5%
Private Backyard	41.215 sq. ft.	0.9	15
Semi-private Frontyard	30.912 sq. ft.	0.7	10
Public Open Spaces (Courtyard, sports playground)	35.600 sq. ft.	0.8	12.5
Parking & Internal roads	65.150 sq. ft.	1.5	22.5
No Definite Use	34.703 sq. ft.	.8	12

On first examination of the tabulated data, it was clear that the people were satisfied with Castle Square. The three user satisfaction questions were the first indications of this satisfaction.

In Question I-25, in renting this apartment, do you think that you are getting your money's worth; 29 of the 39 people who answered this question said that they were getting their money's worth. This is a clear majority of the people who did seem satisfied.

In Question II-18, all things considered how would you rate this development, Castle Square received one of the highest overall ratings with 3 excellent ratings, 15 good ratings, 21 fair ratings, no poor ratings, and 1 very poor rating.

Question IV-13, is this house/apartment better or worse than you anticipated, 24 said better, 7 said what I expected, 5 said worse, 1 said don't know, and 4 made various other comments. This was one of the highest overall rates for the 6 developments that we studied and indicated considerable satisfaction with this housing.

In Question II-11, do you feel safe and secure living in this housing, 23 of the 40 people who answered this question said yes. Although this is a small majority that said yes, it is still a slightly favorable statement.

Even more than the user satisfaction questions, some of the other questions demonstrate that the people were well satisfied with Castle Square.

I-1 The bathroom, livingroom, and master bedroom seemed to be large enough but in the kitchen and second, third, and fourth bedrooms there was considerable disagreement as to whether they were large enough or not.

I-2a Here the people clearly indicated that they liked their present spatial allocation.

I-2 The answers here tend to support the findings in Question I-1.

I-3 Castle Square was the one development that seemed to have problems of not enough storage space in some of the rooms: livingroom, bathroom, and master bedroom.

I-5 35 of the 39 people who answered this question said that they liked their room arrangement.

I-8b This is the first of several questions where a large majority of the people who answered this question said keep it as it is, which is a real indication of satisfaction with the present unit.

I-10 Castle Square is the only development in the study where there was considerable disagreement as to whether there was good ventilation in the unit which could be a source of real dissatisfaction.

I-14 In Castle Square, 35 of the 41 people said that they used the central laundry facility, and the remaining 6 said they used other facilities. Seemingly, no one had either a washer or a dryer which is very unusual, although it was against the development's rules.

I-17 Here 15 of the 40 people who answered this question said that they would redesign their unit if they had a chance. This was the largest number of people who seemingly wanted changes in the unit. This may seem like a contradiction to the fact that most people liked both their spatial allocation and their room arrangement. However, if an examination is made of the things people wanted changed, they were either

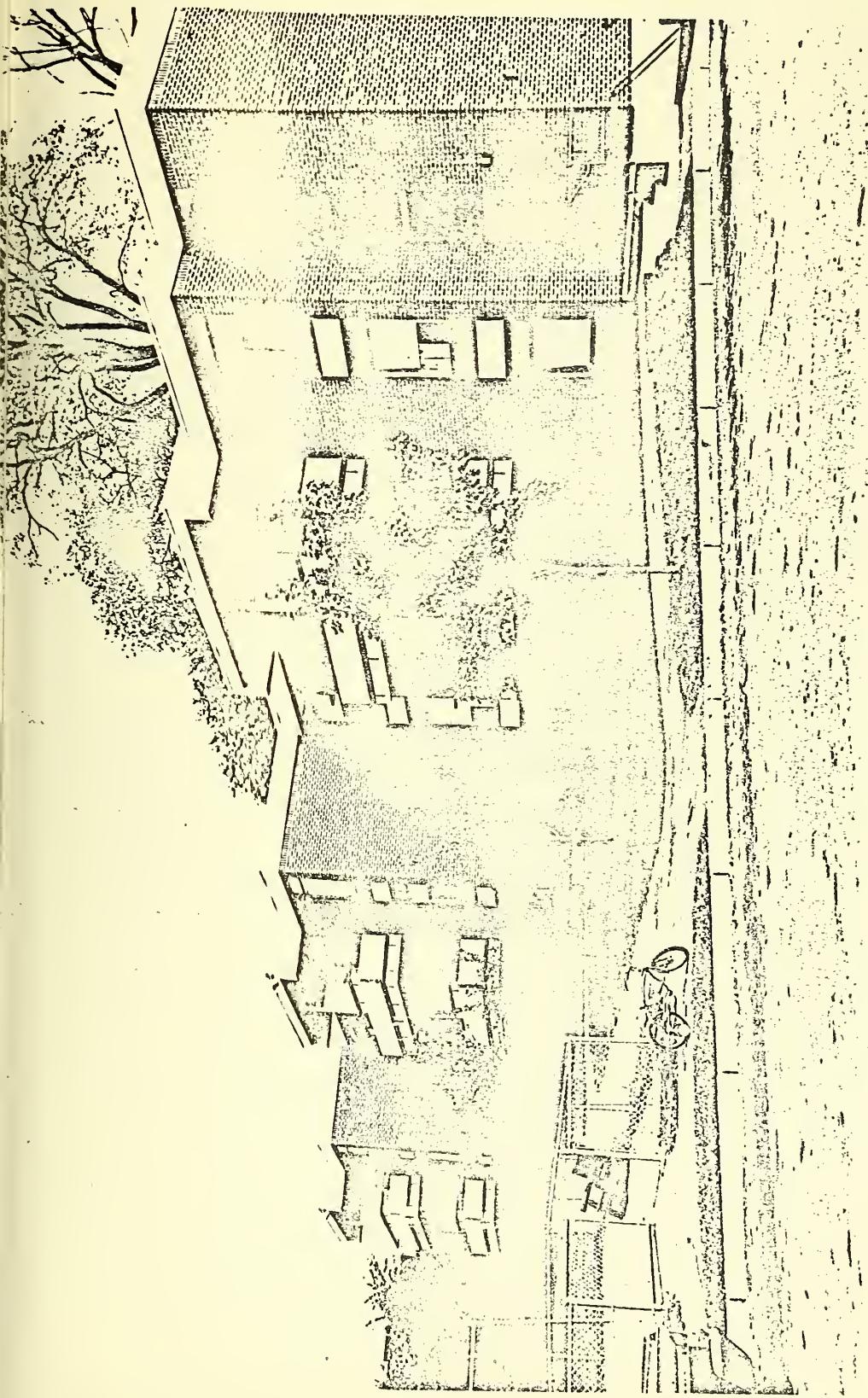
details or additions to the existing unit.

I-18 Almost all of the people said that private open space for each family was important. All the families interviewed in Castle Square had private open space.

I-20a Also a majority of the people said that their private open space was large enough. This was especially interesting since most of the people had balconies.

I-25 There was considerable disagreement among the residents as to whether stacked duplex was more like an apartment or a house.

II-3, II-3b In both cases, the largest number of people in any of the categories have answered "as it is now" as the way play areas should be handled. This indicates some satisfaction with present recreational space.

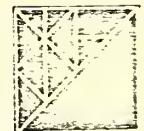
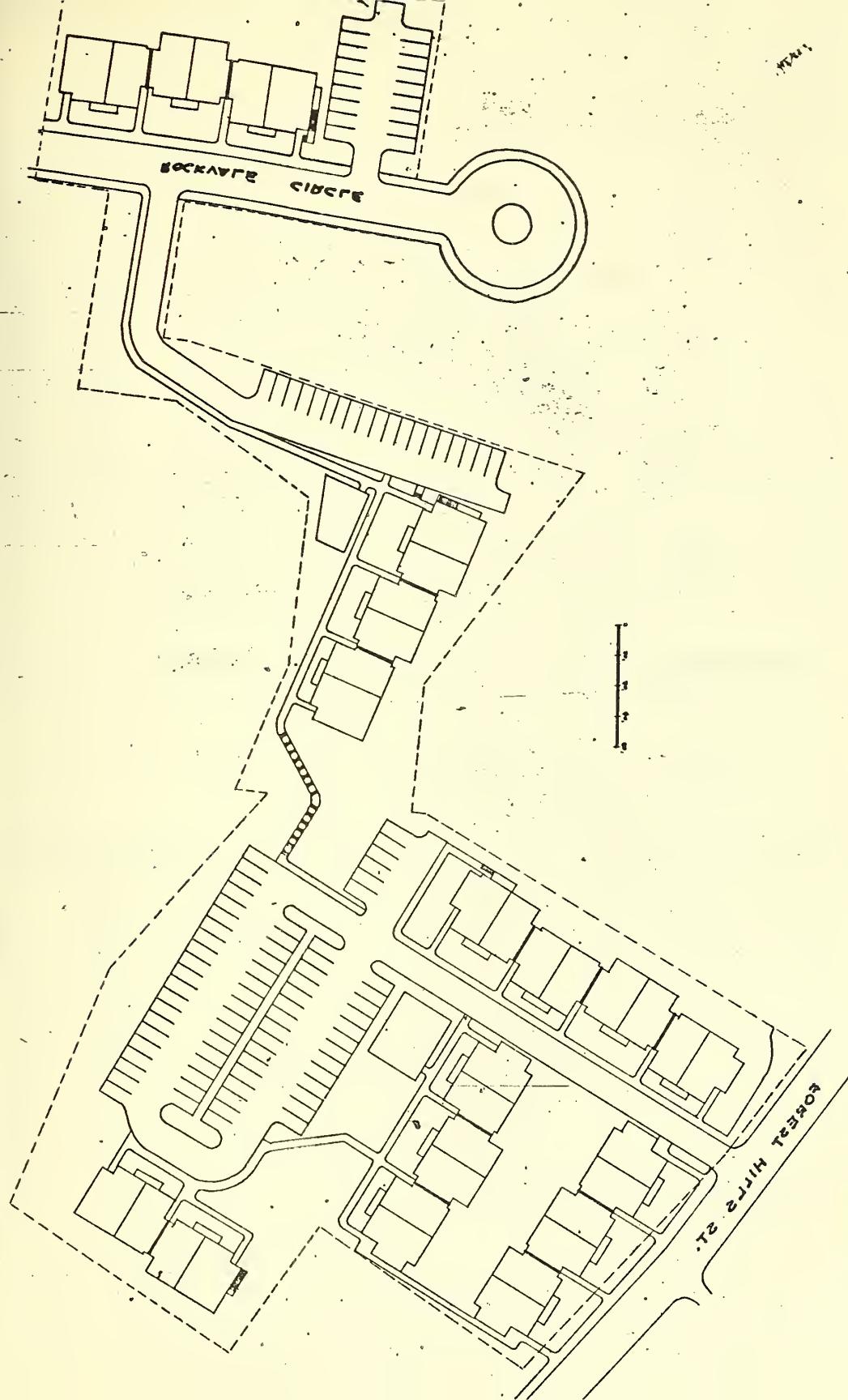


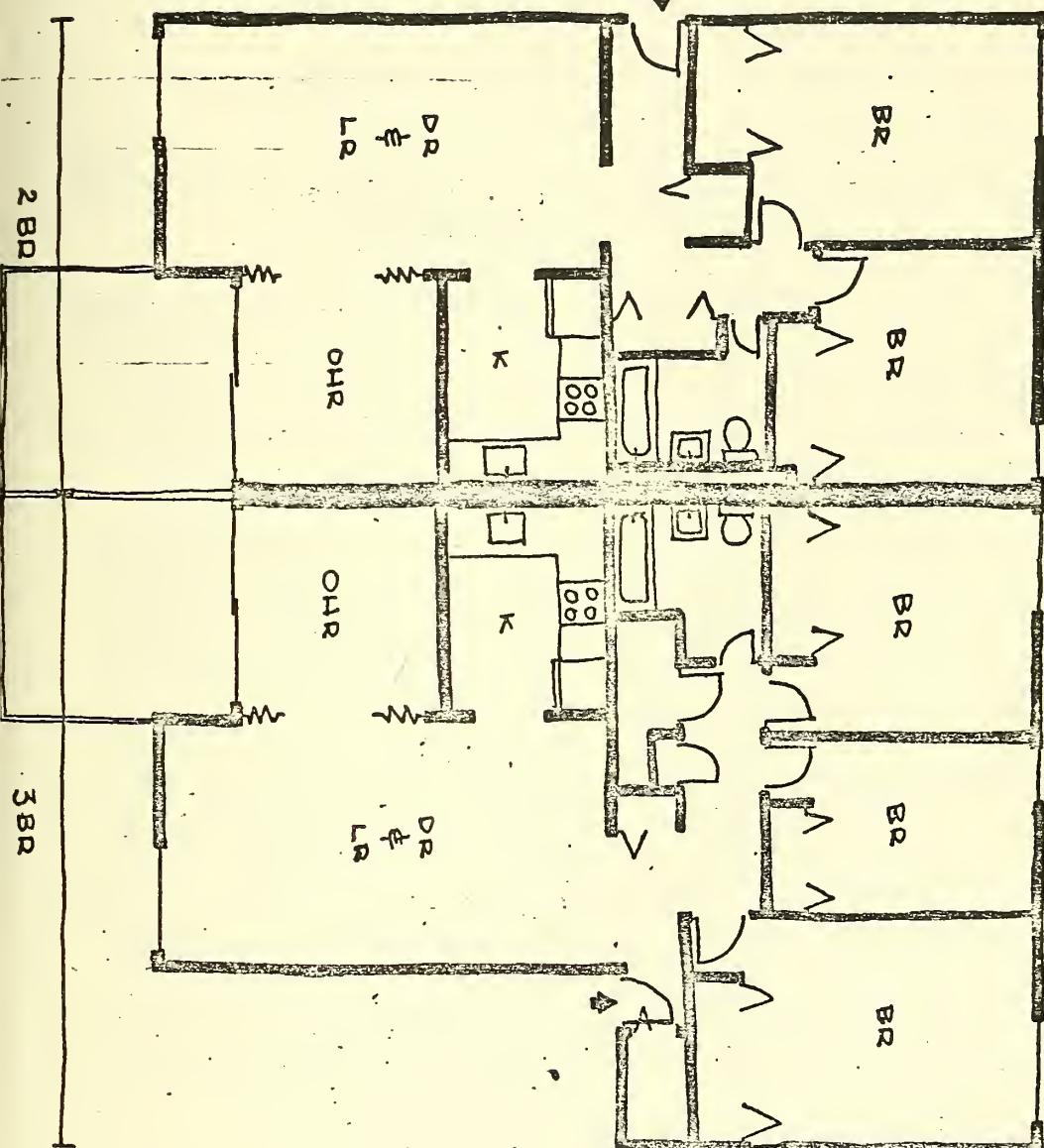
FOREST HILLS APARTMENTS

Forest Hills Apartments consist of single level flats stacked three high with six units grouped around a common stair. The flats are wood frame construction with brick facing and concrete or concrete block walls vertically separating the units. The basic unit organization has the only entrance to the apartment into the living room and public and private parts of the apartment, separated by the central core of kitchen and bathroom. These units have no basements, washers, or dryers, but each has a fenced patio or balcony. There are central laundry facilities. The site planning was poor. The open space created by the rows of buildings was not useable because no door, patio, balcony, and few windows opened onto these green areas. Most of the rest of the open space was devoted to parking lots with the exception of one very small, fenced play yard.

DEMOGRAPHIC INFORMATION

In Forest Hills, 10 of the people interviewed were white, 4 were black and the remaining 1 were oriental. Of this, 11 were women and 4 were men, with most of the sample being in their 20's. Most of them had lived in Forest Hills two or more years. The incomes given ranged from less than \$5000.00 to between \$9000.00 to \$11,000.00 per year, with the most common income level being between \$7000 to \$9000. The range in family size was from 2 to 6 persons, with 3 persons being the most common family size and the average number of children per family being 1.1. All of the families interviewed had an adult male in the household.





FOREST HILLS
STREET APTS.
FLOOR PLANS
22(1)3 HOUSING
SCALE: 1/8" = 10"

FOREST HILL STREET APARTMENTS

1. Housing

1.1 Grouping System

<u>Type</u>	<u>No. of D.U.</u>
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A-3 Story Walk-up Buildings	108
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1.2 Types of Dwellings:

<u>Nomenclature</u>	<u>Type</u>	<u>Area/Unit</u>	<u>No. Units</u>	<u>%</u>
A	2 BR Flat Apt.	922 sq. ft.	90	83.4
B	3 BR Flat Apt.	1271 sq. ft.	18	16.6
			108	100%

2. Community Facilities

2.1 Services

<u>Type</u>		<u>No. Units</u>
Storage (for each unit)	yes	108
Laundry	yes	3
Waste	yes	3

2.2 Educational

Child Care	no	x
Nursery School	no	x
Kindergarten	no	x
Elementary School	no	x

2.3 Recreational

Park	no	x
Playground	yes	2
Meeting Room	no	x
Sports Field	no	x

2.4 Commercial

Food Store	no	x
Drug Store	no	x
Snack Bar & Cafeteria	no	x
Hardware Store	no	x
Bank Office	no	x

2.5 Movement

Public Transportation Station (Rapid Transit Stop)	yes	1
Private Transportation Spaces	yes	108

3. Use of Land

	<u>Sq. Footage</u>	<u>Acreage</u>	<u>%</u>
3.1 Tot Site Area	193,683	4.4	100
3.2 Res. Floor Area	37,852	.87	20

3.3 Community Facilities

Floor Area			
Services (in housing)	x	x	x
Educational	x	x	x
Recreational (covered)	x	x	x
Commercial (in housing)	x	x	x
Movement	x	x	x

3.4 Open Space

Private Residential Backyard	x	x	x
Semi-private Resid. Frontyard	x	x	x
Public Open Spaces, Courtyard, playground, & Parks	2,958	.07	1.6
Parking & Internal Roads	59,601	1.37	31
Other Uses Non-Defined	93,272	2.09	47.5

It was clear from a first examination of the tabulated data that the residents of Forest Hills were very satisfied with their development. There are three "user satisfaction" questions and one question that deals with safety that were used as indicators of how the residents felt about their development.

The first of these, Question I-26, in renting this apartment, do you think that you are getting your money's worth, 11 of of the 15 people interviewed said yes, a clear indication of some satisfaction with their unit.

In Question II-18, all things considered, how would you rate this housing development, three people said excellent, 8 people said good, and 4 people said fair with no poor or very poor ratings. This too is a clear indication of satisfaction. This was the only development that had no poor or very poor ratings.

Question IV-13, is this house or apartment better or worse than you anticipated, 7 answered better, 4 answered what I expected, 2 answered worse, and 2 said don't know. This again is a favorable response to the development.

Finally, in Question II-11, do you feel safe and secure living in this housing, 8 of the 15 people interviewed said yes, and the remaining 7 said no. This is only a slightly favorable majority and may have indicated problems with the surrounding neighborhood as well as problems with the development.

Now an examination of some of the remaining questions may help to explain the favorable responses that the people gave to the previous questions.

I-1 All of the rooms in the units at Forest Hills clearly have enough space.

I-2a 5 out of the 13 people who answered this question, said that they would like to change the spatial allocation in their unit which may be an unfavorable comment.

I-3 There was also clearly enough storage space in all the rooms.

I-4 Forest Hills was the only project that clearly had enough storage space for items that could not be stored in their unit. This could easily be source of some satisfaction.

I-52 13 of the 15 people interviewed said that they liked their room arrangement.

I-6a All of the people had entry halls, and all said that they liked them. Since an entry hall was something almost everyone said that they would like to have, this too could be a source of some satisfaction.

I-9a Forest Hills was the one development that seemed to have problems with sun control. 4 people said too much sun, 6 people said not enough sun, and 5 people said no problem with sun.

I-9b Here 7 of the 9 people who answered this question said that sun control was an important problem.

I-11, 12 Forest Hills had sound transmission problems. 12 of the 15 people interviewed said that they could hear sounds from the neighbor's house, and 6 of the 12 who answered this question said that these sounds disturbed them.

I-13 There was also considerable problem with the plumbing, heating, and the functioning of doors.

I-14 People in Forest Hills said that they liked the location of the

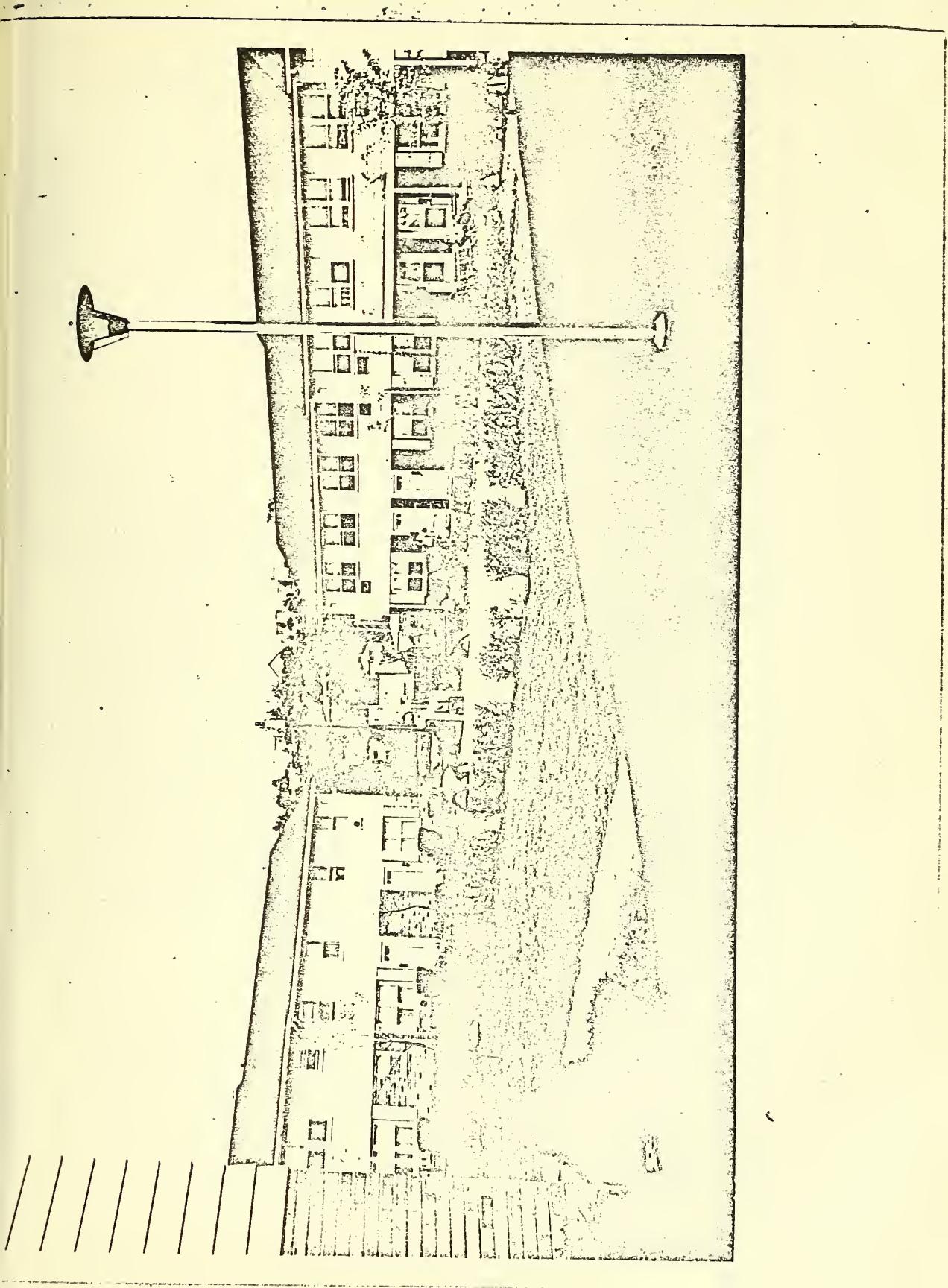
trash cans.

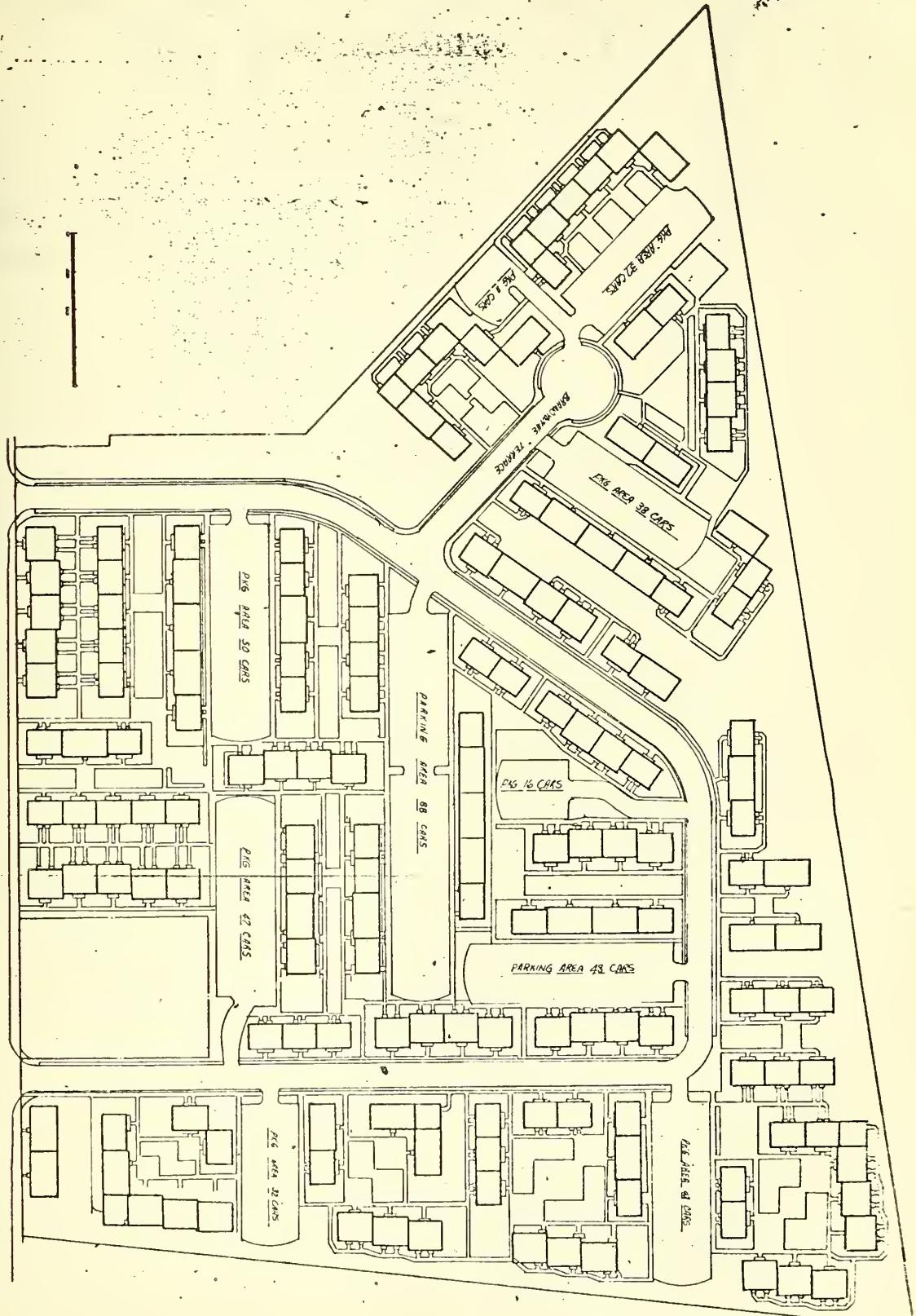
I-17 11 of the 15 people interviewed said that they would redesign their unit if they had a chance. This is not too favorable a comment about the development.

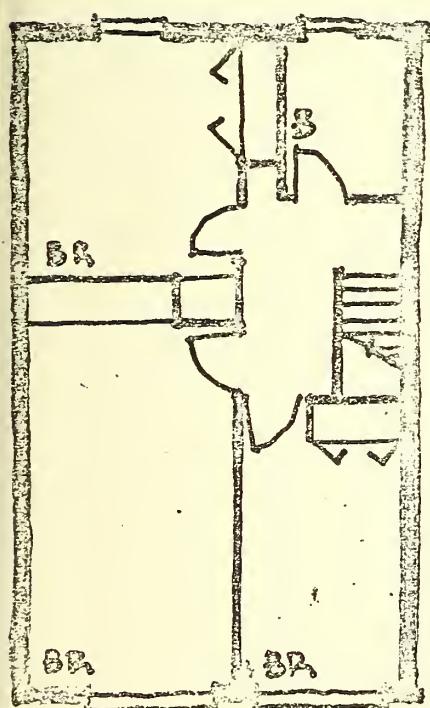
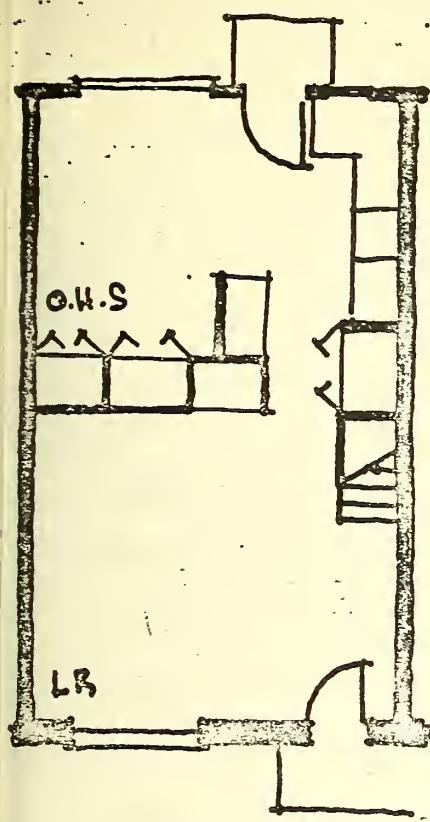
I-18, 19 All of the people interviewed said that they thought it was important for families to have private open space. All of these families had private open space and all said that they used their private open space.

I-20a 11 of the 15 people interviewed said that private open space was large enough. This is interesting since these were all balconies or balcony size spaces.

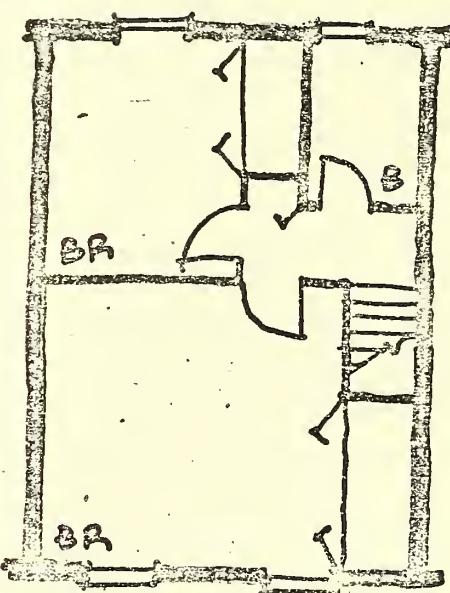
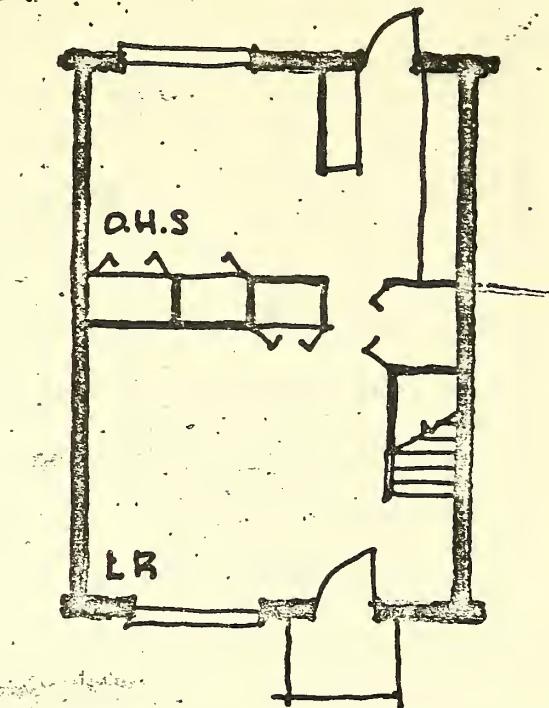
I-25 13 of the 14 people who answered this question said that their unit was more like an apartment than a single family house, yet these people seemed to be very satisfied with their housing.







UNIT A
3 BED-ROOMS



UNIT B
2 BED-ROOMS

BRANDYWINE
ORIENT HEIGHTS
221 (G) 3 HOUSING
SCALE 'B' = 1:0'

BRANDYWYNE VILLAGE

Brandywyne Village consists of a combination of single level flats stacked two high and two story row houses. These houses and flats are wood frmae with brick falling on the ground floor. The basic unit organization of the two story row house has the main entrance (a private entrance) into the living room; the public spaces on the ground floor, the bathrooms and private spaces on the second floor. These units have no basements, no washers, dryers, and no private outdoor space. However, there are central laundry facilities available.

In the flats, those on the ground floor have a private entrance into the living room; those upstairs have their entrance off of a stair shared by two units. The basic organization of the unit has the living room, the bathroom, the kitchen, and the bedroom each in a separate corner of the rectangular apartment. The site planning has created rows of units which divide the site almost equally between open space and parking with a few equipment play areas for children.

DEMOGRAPHIC INFORMATION

In Brandywyne Village 31 of the people interviewed were white, 3 black, 1 oriental, and 2 other. Of this, 31 were women and 4 were men, most of the sample being in their 20's and 30's. Most of them had lived in Brandywyne from nine months to two years. The incomes given ranged from less than \$5000.00 or to more than \$11,000.00 per year with the most common income level being between \$7000 and \$9000. The range in family size was from 2 to 6 persons, with 4 persons being the most common family size and the average number of children per family being 2.0. About 32 of the families interviewed had an adult male in the household.

BRANDYWINE VILLAGE, ORIENT HEIGHTS

GROUPING SYSTEM	No. Dwelling Units	%
Row Houses	262	
Flat Apartments	140	
	402	
TYPES OF HOUSING		<u>Area/Unit</u>
1 3 BR Row House	1.125 sq. ft.	116
3 2 BR Row House	944 sq. ft.	146
1 1 BR Flat	752 sq. ft.	140
		402
COMMUNITY FACILITIES		
SERVICES		
Garage	yes	4 rooms
Laundry	yes	1 room
Waste Disposal	yes	
EDUCATIONAL		
Child Care	no	
Nursery School	no	
Kindergarten	no	
Elementary School	no	
RECREATIONAL		
Play Areas	yes	8 rooms
Sitting Areas	yes	16 rooms
Sport Field	no	
COMMERCIAL		
Food Store	no	
Drug Store	no	
Snack Bar & Cafeteria	no	
Hardware Store	no	
Bank Office	no	

OVEMENT

MTA/Bus Stop	yes	2
Parking Spaces	yes	490

O COMMUNITY FACILITIES

SE OF LAND

Total Site Area	868,000 sq. ft.	20 Acre
Residential Floor Area	180,300 sq. ft.	4.2 Acre 21%

Commercial Facilities Area

Open Space	687,700 sq. ft.	15.8 Acre	79%
Private Backyard	650,400 sq. ft.	1.3	7
Semi-private Frontyard	56,628 sq. ft.		
Public Space	72,700 sq. ft.	2.1	10
Parking & Roads	193,244 sq. ft.	4.4	22
Rest Home	30,000 sq. ft.		

UNDEFINED USES	321,200	37
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It seemed clear from a first examination of the tabulated data, that the residents of Brandywine Village were very satisfied with their development. There are three direct user satisfaction questions and one question about safety used as an index to tenants' development satisfaction.

In Question I-26, in renting this apartment, do you think that you are getting your money's worth, 32 of the 35 people interviewed said that they were getting their money's worth, a clear indication of some development satisfaction.

In Question II-18, all things considered, how would you rate this housing development; 3 people rated it excellent, 17 people rated it good, 9 people rated it fair, and 2 people rated it poor, which is clearly a favorable rating.

In Question IV-13, is this house/apartment better or worse than you anticipated, 9 people said better, 14 people said it was what they expected, 7 people said worse, 3 said they didn't know, and there were two comments listed under the heading other. In this case, the tenants response turned out to be more neutral than anything else.

Finally, in Question II-11, do you feel safe and secure

living in this housing, 28 of the 35 people interviewed said yes. This was a strong endorsement of the development and by far the highest percentage of people who felt safe in any of the developments studied.

Now an examination of the remaining questions can give some idea of why residents in Brandywine Village responded so positively to their development.

I-1 This is the only development where there were no rooms that were not large enough; although there were no rooms that were unanimously large enough.

I-2a Here 13 of the 34 people who answered this question said that they would change the spatial allocation. This is one of the largest percentages of people who wanted change.

I-3 All of the rooms seem to have enough storage space, which was not true for some of the other developments.

I-4 Brandywine, like most of the other developments, did not have enough storage space for items that could not be stored in the unit.

I-5a Here 33 of the 35 people interviewed liked this room

arrangement which was another clear endorsement of Brandywine Village.

I-8a A clear majority preferred a separated cooking-dining arrangement.

I-8b Here a majority of those who answered preferred the existing method of separation, another indication of satisfaction.

I-9b Brandywine was one of two developments where a majority of the people who answered the question said that sun control is an important problem.

I-11, I-12 Evidently, there was good sound transmission of certain sounds in Brandywine, and according to Question 12 there was considerable disagreement as to whether or not these sounds were disturbing.

I-13 The functioning of doors and windows seemed to be troublesome in Brandywine.

I-16 The people seemed to like the location of their trash cans.

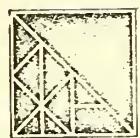
I-18 Although Brandywine Village has no private open

space, 29 of the 35 people interviewed said that it was important for families in a development such as this which could be source of much dissatisfaction.

I-25 Here the people clearly felt that their housing units were like a single family house which could be a source of much satisfaction.

II-3 Here the largest number in any category were those who thought that the present play areas were properly or adequately placed which is an endorsement of part of the present site plan.

II-4b This was the only development where a large number of the school children played "all around" which may be a result of the people feeling very safe in this development.



CONCLUSION STATISTICS
ANALYSIS COMMENTS SUMMARY

SITE DESIGN

Children's play areas represented one of our primary concerns. When asked where they thought the pre-school play area should be located, the people made several responses: close to the house or within sight, private backyard, for each group of houses, and in fenced in or supervised areas. Seemingly, all of these responses have three things in common: implied supervision by mothers and/or others, somewhat protected areas, and areas close to the child's home. These three considerations should receive careful consideration in any future design.

In response to the same question when asked about school children, the people gave no clear directive. The comments were about equally divided between: away from the house, close to the house, one central lot or playground, and as it is now. The only thing that seems clear about areas for school children to play in was that much more flexibility would be acceptable in terms of location of play areas.

At present, the pre-school children and the school

children seem to play in much the same places: out front, all around, in playgrounds, and in the backyards, while the pre-school children played inside the house more and school children played outside the development more. This might be explained by the fact that these are not differentiated areas provided for play areas for pre-school or school children and that they all play where they can.

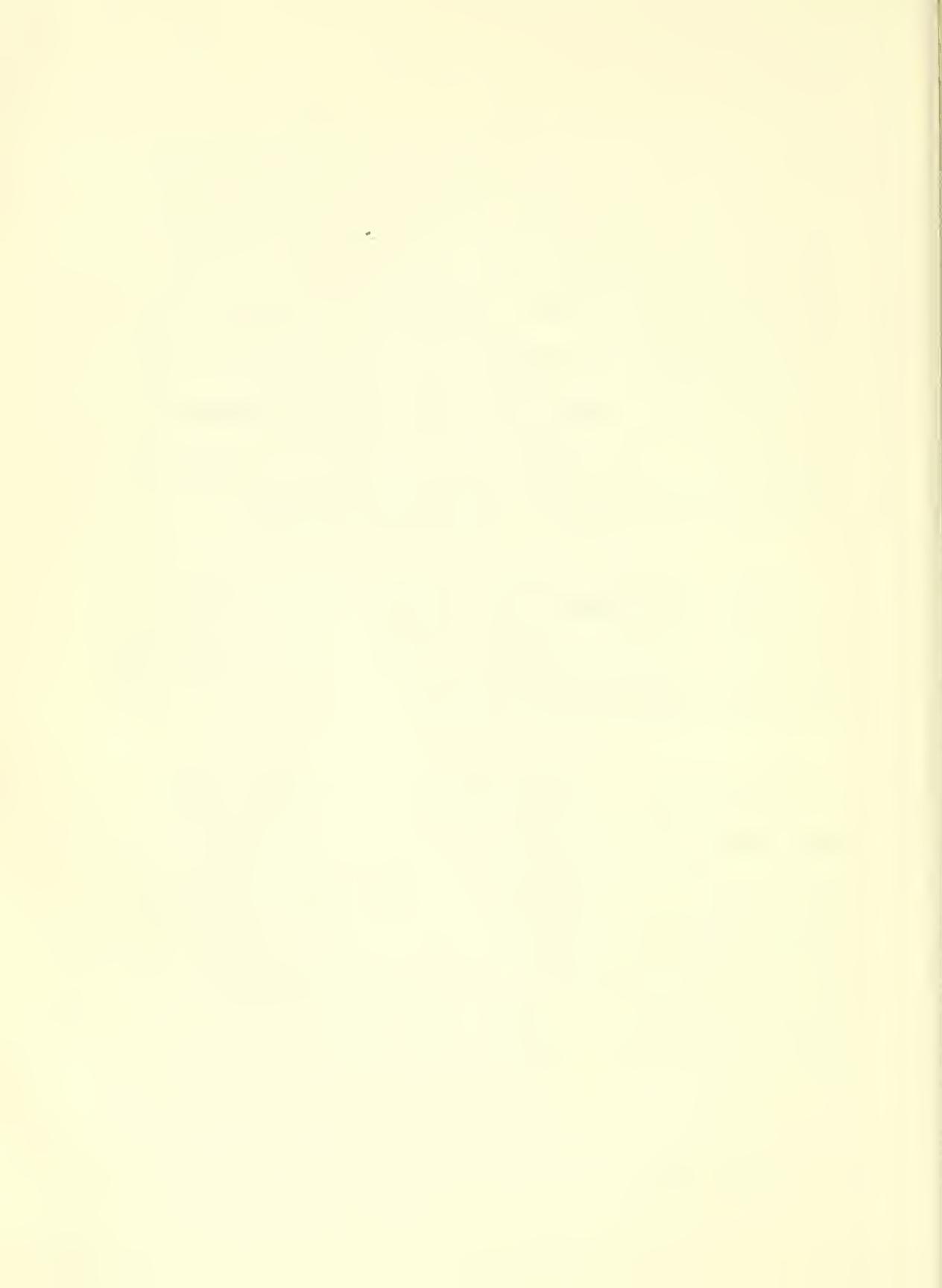
One of the most interesting and significant findings to come out of the site planning research was that the people clearly felt that recreational facilities should be provided for teenagers in the developments. The facilities thought necessary were recreation and party rooms, and to a lesser extent sports fields, basketball courts, and swimming pools. Although it was the adults that were questioned about whether the teenagers should have facilities and what facilities they should have, I think that the teenagers would agree with them.

Parking presented an interesting problem. About half of the people interviewed had cars, and most of them parked them in the parking lots. The people said that they wanted to keep their eye on the car from their home

and that a majority would be interested in parking their cars farther away from their homes in order to keep the traffic away from the children's play areas. At first glance these two statements may seem to be contradictory, but they may be an indication of the people's priorities. It also could be a case of the people not understanding the question. In any case, with no further investigation, it would be hard to make a definitive statement.

Finally, the people gave a general approval to the site design of the developments by saying that they thought the outdoor areas were well designed.

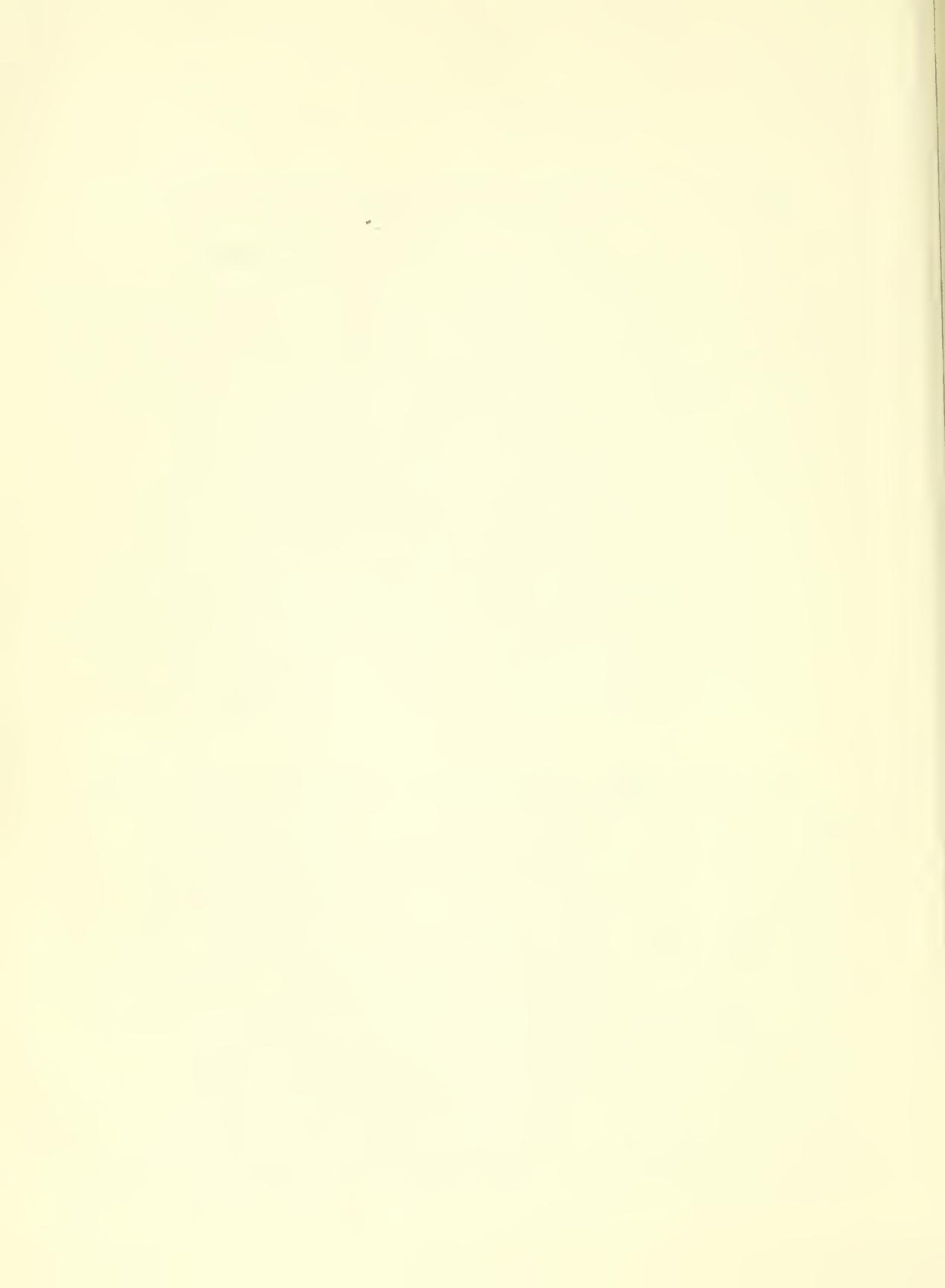
In conclusion, I would say that site design is the area in this housing that needs the most improvement, and in this area the location, definition, and equipping of play areas for the different age groups of children should be a primary focus of the site design as well as the inclusion of more community facilities.



UNIT DESIGN

Most of the residents interviewed had enough space in their kitchen, bathroom, master bedroom and second bedroom. In the third and fourth bedrooms, there is considerable disagreement as to whether there is adequate space or not. In any case, special attention should be given to the size of these rooms. It was also clear that there was enough storage space in all the rooms in most developments. In fact there was a large storage area off the living room in some of the developments that the tenants did not like, and would like to have had moved. Most people did not have adequate storage for items that cannot be stored in the home.

When asked about the distribution of spaces within their units, most people thought that the space was adequately distributed. However, for those who did not think that the space in their units was adequately distributed, they wanted smaller living room and master bedroom, and larger second, third bedrooms. Room arrangement, which is similar but not the same as space distribution, also received a favorable response. Most people stated that they liked the arrangement of their rooms which is an interesting comment



considering the different types of units surveyed. The most talked about problem in terms of room arrangement was the fact that some units had "main entries" in the kitchen and/or the major traffic through the living room or kitchen. Also connected with circulation problems was the desire for an entry hall. In any future design of 221d3 housing, an entry hall or foyer should be a primary consideration. Most of the people wanted to separate the dining area from the cooking area; how it was to be separated was not clear from the study, but the fact that there should be a separation was clear.

Proper sun control is a consideration that many architects spend a lot of time on. But it was clear from the survey results that most people had no problems with sun or sun controls and seemed to have little concern about problems with the sun. Of the people who had problems, there were as many who had too much as there were who had too little sun. It seems clear that there were things that were much more important to these people than sun control or exposure, although the response to that question does indicate that sun control is an important problem.

Most of the people said sounds could be heard through the walls, but there was probably considerable difference of opinion as to whether these sounds were disturbing. Sound insulation in terms of design is still very much a question.

Most of the people wanted outlets for washer and dryer in the units and said that they would buy them if they had the necessary plumbing; this should be a definite consideration in any future design.

Interestingly enough, most people thought that the present garbage container locations in their developments was satisfactory. This is especially interesting because there were several types of systems employed with several different locations involved. The two major types were the large dumpster in or near the parking lot and the garbage can near the unit. Since we did not question the people more concerning garbage disposals, we can draw no conclusions.

The people also said that there was good ventilation in most of the units but since there was no further investigation into this area, very little else can be said about it.

There was considerable trouble with items like plumbing, heating equipment, and garbage disposal. How much or how many of these problems could have been improved with more design consideration is not clear. However, there were many problems with the workings of doors and windows which could have definitely been improved with more careful detailing.

Safety and security were also important needs that many people felt were not being met by the present housing. They suggested better locks, bars on windows, less glass, buzzer/intercom, watchman, stronger doors and no window in that area next to the entry door as improvements that would be most beneficial.

There was a good deal of positive response to all of the developments that were surveyed. Interestingly enough, most people still wanted to redesign their own unit, but there was no consensus as to what changes would be made or as to what the new unit would be like. The most significant thing that came out of this is that many of the changes that people wanted to make were of a minor nature

and could be changed in future design without much difficulty or could be done by the people themselves.

Finally, there was an attempt made to deal with the residents' preference to different housing types. It is generally assumed that the American ideal is a single family detached dwelling on at least a quarter acre lot. But it was felt that this was not a possibility, so these were the choices they were offered. As expected, they generally preferred row houses because of their privacy, quiet, and similarity to one's "own home." This same information had been pretty well substantiated in a previous survey and as a result it was decided that the ideal housing type was a relatively high density organization with the individual units having the characteristics of a detached single family house. With this in mind, we asked the people if they thought their unit was more like a single family house or an apartment. The majority of the people said single family house. But this question was difficult to interpret because of the very different designs of the different units. It did make clear though that a great deal of attention had been given to making each unit as much like a single family dwelling as possible.

PRIVATE OPEN SPACE

In the design of Boston's 221d3 housing, it is clear that people believe it is important for families to have private open space, and that these families use the open space when it is provided. If possible, it would be desirable to develop a combination of semi-private and private open space for each family. This is often a difficult and expensive proposition but where feasible it should receive every consideration. If both can not be accommodated, then private open space should be provided.

One of the most important problems with the private open space is making it private. Fencing was a problem in most developments. In most cases it did not provide the kind of privacy that the people needed. It is very important that if valuable space is going to be provided for individual family open space, that particular attention be given to how these spaces are made private as well as functional.

When how and by whom the space was used can give valuable

clues as to where the space could be located and how it could be handled. As might be expected, children use these spaces relatively most often. However, the entire family also uses these spaces quite often. Most of the use comes in the afternoon and early evening. Sitting, playing various games and cooking and eating were the most popular activities of most families while drying clothes, gardening, entertaining, and storage seemed minor uses. Interestingly enough, most people said that they enjoyed gardening, but very few said that it was an activity for the private open space. This could be one of the considerations for the semi-private open space.

Generally, the people considered the private open space provided in the projects as large enough but the fencing was inadequate to provide the kind of privacy they desired, or to control the movements of their children into or out of the yards.

One of the more significant findings of this survey is that the people definitely prefer larger private open spaces to larger public open spaces. This strongly reinforces

their desire for private open space for each family and makes a clear case for providing open space in future low and moderate income housing.

COMMUNITY FACILITIES

Community facilities is another area that needs a great deal of attention in the design of future housing developments. The people clearly felt that there was a need for additional community facilities in any and all housing developments. They said that the most important facilities were: playgrounds, nursery schools, child care centers, meeting rooms, party rooms, stores, and handcraft rooms in that order of preference.

In conjunction with this, people seemed to prefer more or less passive activities such as television, music, reading, movies, and spectator sports. These activities tend to support the need for buildings devoted at least in part to community uses.

When asked whether they thought these developments had a sense of community, a majority of the people said no. However, most people said that they thought it was important for these developments to have a sense of community. When asked about the relationship between their development and the surrounding area, some people said that there was no

relationship. Some said that there was a bad relationship. Some said that there was a good relationship. But most agree that they did not know what kind of relationship existed.

One of the functions of the community facilities could be to tie some of these loose ends together by providing a focus around which some of the other necessary things can be built like the interdependence that is necessary before there can be a sense of community.

USER SATISFACTION

In part, user satisfaction can be determined from the general results of the questionnaire, but there were three direct user satisfaction questions included in the tenants' questionnaire to get more conclusive information. The results of these particular questions are hard to interpret because of the differences within and between projects, but they still can give an indication of how the people feel about the places they have lived in.

The first question was; "Do you think you are getting your money's worth?" People clearly indicated that they thought that they were getting their money's worth, which seems to indicate that they were in some ways satisfied with the developments. In the second question, they were asked to rate their development. Most people rated their development as either good or fair, which again indicates some satisfaction with their developments. Few people rated their development either excellent or very poor.

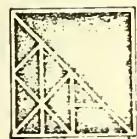
Finally, the people were asked if their unit was better or worse than they anticipated. They generally indicated that it was either what they expected or better, which is

again some indication of satisfaction with their homes.

Although the overall result was favorable, these questions are much more useful when you begin to examine the responses in relation to each individual project.

MAINTENANCE

The maintenance section was an attempt to assess tenant interest in doing maintenance work for a reduction in rent. The results were inconclusive, but they do indicate enough interest on the part of the tenants to warrant further investigation. The potential contribution of this kind of program to the success of a housing development could be very important.



APPENDIX STATISTICS EVALUATION BIBLIOGRAPHY TABULATIONS



ENTER FOR URBAN STUDIES OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY AND HARVARD UNIVERSITY
SURVEY RESEARCH PROGRAM

44a Brattle Street,
60 Church Street, Cambridge, Massachusetts 02138 • 868-1410

November 25, 1969

MEMO

TO: Jerry Sauter, Dept. of Urban Design, Boston Redevelopment Authority
FROM: Morris Axelrod, Director, Survey Research Program
SUBJECT: CRITIQUE OF METHODOLOGY

For a researcher you have displayed rare courage and dedication in asking me to prepare a critique and evaluation of the methods you used to carry out your study of 221(d)3 housing, and for me to consider whether the methodology is adequate to support your interpretation of the findings.

Program evaluation cannot rely solely upon impressions but need to be buttressed by more systematic observation. Like most evaluation research, this project suffered from tight budget and deadlines which precluded use of specialized survey technicians. Under such circumstances there often seem to be only two choices open to a planning or operating agency (1) to do "poor" or inadequate research or (2) to do no research at all. And since it is sometimes persuasively and correctly argued that "poor" research is not better than no research because it yields misleading information, it seems better not to undertake any research at all.

However, there is another option which may fall short of what the methodological purist may expect but is well suited to the needs of an operating agency or organization which must make day-to-day plans and decisions and cannot wait for final answers. It is possible to design and carry out a survey which may lack precision but avoids gross bias.

This project may be regarded as an example of what is possible and practical. Despite minor methodological weaknesses, it is indeed better than no research, even more, it should be of considerable value to architects and planners in assessing the quality and adequacy of 221(d)3 housing from the tenant's perspective. The limitations arise from the compromise with precision rather than poor or faulty methods.

As research director, you undertook to carry out this study without having the funds to purchase professional assistance and advice for the technical aspects of the survey normally requiring special skills - sample design, question construction, coding and data reduction. However, through your serious efforts to inform yourself by means of informal discussions and texts you have succeeded in avoiding major pitfalls.

I believe that this report may be accepted with confidence as a fair statement of the nature and direction of the views of the residents of the projects studied, with reservations regarding the actual number or percent in each group.

Of course, my remarks are based only on what is evident from written documents - such as the report, the questionnaire, the code used.

Taking note of your limited resources - both financial and manpower, and the time constraints, the staff deserves considerable credit for having succeeded in producing a significant piece of research which with minor reservations appears to be methodologically sound.

The Sample

The procedures you used to select the sample for this survey should provide unbiased estimates of the households in the projects surveyed. By this I mean that any estimate based upon a sample statistic has an equal likelihood of being greater than or less than the statistic by chance alone. For example, when you report that 63 percent of the Academy tenants say that the housing was worse than they expected, this figure of 63 percent is an estimate. It may be in error because it is based on a sample, but this error is just as likely to be more than the 63 percent as less than 63 percent.

There are several characteristics of the sample and the procedure used which should be kept in mind:

1. In each housing project, after a random start, every fifth housing unit was selected. Use of a systematic sample such as this has inherent in it what is normally only a slight risk - that the rate of selection will coincide with some regularity or periodicity in the distribution or arrangement of the population. When this happens, all of one type may fall into the sample while another type may be excluded entirely. For example, if every tenth house is a corner house, and the sampling rate is one in ten - one type of housing will be excluded - all corner houses, or all non-corner houses. Exactly this occurred in selecting the sample from one of the projects. However, when you recognized this deficiency you reselected the sample.

Such a bias might initially have been avoided by selecting a simple random sample, or by stratifying the units by type and selecting the sample from within each stratum of housing-type.

The Sample (cont.)

2. The sample size is relatively small and the sampling error for the individual projects may be substantial - the smallest sample being twelve (Charlame) and the largest being forty-one (Castle Square). On future studies, I would recommend that a minimum size sample be set for each project - say no fewer than 50.

Sampling errors have not been computed. The error associated with any specific figure is undoubtedly quite large. However, you are treating the study as a quasi-clinical study with an element of systematic observation. And, I believe if this is kept in mind, one need not be too rigid in insisting upon precise measurements of variance.

3. The non-response which was about 20 percent may introduce a modest amount of bias to the extent that the non-interviewed households are different from the interviewed households.
4. In most cases the housewife or lady of the house was the respondent. To the extent that the information obtained is objective or factual, or to the extent that the issues are of greater relevance and salience to her, she may be considered as an appropriate spokesman for the household. Whatever weakness there is in this assumption, would have been overridden by interviewing a random adult within each household, or by interviewing each of the principals - husband and wife.
5. This is a sample only of housing units with two or more bedrooms. Your rationale was that this study was primarily concerned with the adequacy of housing for families with children. Considering this objective, it might have been met more effectively by sampling from all units with children regardless of size and type of housing unit.

The Questionnaire

My general assessment of the questionnaire is that it is reasonably uncomplicated, well organized and the questionnaire wording acceptable, with occasional lapses. However, there are two sources of error.

1. Question wording: There was an occasional tendency to be too formal. Terms or phrases were used which were closer to the conceptual terminology of the researcher or the jargon of the planner than to basic English. These make for two kinds of problems. The first is a high incidence of no answers or uncodable answers because the respondent fails to understand the question, and the second is answering from different frames of reference because the question is understood differently by different respondents.

Some examples of such terms are: facility, stacked duplex, security, anticipated, ventilation, sense of community, relationship. For each of these, and others, some substitute terms could be found, or a simple definition or explanation or example incorporated into the question.

The Questionnaire (cont.)

2. Procedural ambiguity: There were several places in the questionnaire where it was not clear whether the alternatives were to be offered as choices by the interviewer to the respondent or whether it was intended that the interviewer ask an open question and precode the response into one of the categories shown. Occupation would be a particularly difficult item.

When there is a high incidence of not ascertained responses, the distributions are less reliable. There were only a few places - notably income - where there are sufficient problems to indicate basically unreliable estimates.

The Code

The substantive categories of the code appear to represent well all relevant dimensions and range of responses. However, the form of the code - its format and spacing could be improved to facilitate the speed and reliability of coding.

There is some unclarity with respect to your use of "control" codes and coding conventions. For example, the distinction between "not ascertained" and "don't know" is not always apparent.

Was coder reliability measured? If only for your files, it would be helpful to have some measure of code and coder reliability to give some assurance that differences are not due to chance variation.

Tabular Presentation of Data

The present form of the tables are useful as a source for retrieving the raw frequencies. Due to varying sizes of project samples, however, it is difficult to make comparisons among projects.

Ordinarily percentage tables would facilitate comparisons, but in this case percentage tables would lend themselves to misinterpretation by those who would impute a greater reliability to the figures than they warrant. You could make the differences more graphically apparent by either rank-ordering each community for each variable, or an even simpler device would be to assign a "0", "4" or "—" according to whether the average for the whole population was approximated, exceeded or not achieved by the specific project.

Charlame was oversampled at two and one-half times the rate of the other projects. Therefore in the column which shows frequency distributions for the total of all projects, all cases from Charlame should be counted in at only 40 per cent of the actual number interviewed; that is the 12 cases should be counted in the total as 5 and all subgroups similarly weighted by .40.

BOSTON REDEVELOPMENT AUTHORITY
URBAN DESIGN DEPARTMENT

TALLY OF 168 QUESTIONNAIRES - HOUSING SURVEY TO DETERMINE THE EFFECTIVENESS
OF DWELLING UNITS AND SITE PLANNING IN 221 (d) 3 HOUSING IN BOSTON

STUDY CONDUCTED : SUMMER 1969

INTERVIEWERS :

John Foley

Kathryn Kasch

Fernando Jimenez

Mario Small

I. COVER SHEET DATA

	Total	Charlame Gardens	Warren Gardens II	Academy Square	Castle Square	Brandy- wine	Forest Hills
1. Number of interviews Completed	168	12	27	38	41	35	15
3. Location of the unit <u>End of the Row</u>	74	5	12	14	19	19	5
<u>Middle of the Row</u>	40	3	6	11	11	4	5
<u>In Between</u>	54	4	9	13	11	12	5
<u>Adjacent to Parking</u>	81	5	4	25	21	21	5
<u>Not Adjacent to Parking</u>	87	7	23	13	20	14	10
Near Active Play Area	88	10	7	21	27	14	9
Not Near Active Play Area	80	2	20	17	14	21	6

Total	Charlame	Warren	Academy	Castle	Brandy-	Forest
	Gardens	II	Square	wine	Brandy-	Hills

4.	Unit Type	<u>1</u> Bed Room	1	10	11	1
		<u>2</u> Bed Room	52	1	18	12
		<u>3</u> Bed Room	87	5	19	3
		<u>4</u> Bed Room	28	6	9	10

5.	Type of Entryway	<u>Single</u>	43	12	27	4
		<u>Double</u>	35			35
		<u>Set-Back-</u>	17			17
		<u>Door Off Hallway</u>	73			24

6.	Floors	<u>1</u>	12	8	1	3
		<u>2</u>	20	14		6
		<u>3</u>	14	8		6
		<u>4</u>	3	3		6
		<u>5</u>	1	11		
		<u>6</u>				
		<u>7</u>				
		<u>8</u>				
		<u>9</u>				
		<u>1,2</u>				
		<u>1,2,3</u>				
		<u>1,2,3,4</u>				
		<u>Other</u>				
7.	Private Open Space	<u>Yard</u>	40	12	17	11
		<u>Balcony</u>	41		5	24
		<u>Patio</u>	9	6	33	12
		<u>None</u>	78	4	6	3

II. Part 1 - UNIT DESIGN

1. One of the first things we would like to know is whether you have enough space in your rooms.

	Total	Charlame	Warren	Academy	Castle	Brandy-	Forest
	Gardens	II	square	square	wine	square	Hills
<u>Kitchen</u>							
Enough Space	139	12	25	35	29	26	12
Not Enough Space	29		2	3	12	9	3
<u>Bathroom</u>							
Enough Space	134	10	17	30	35	28	14
Not Enough Space	34	2	10	8	6	7	1
<u>Living Room</u>							
Enough Space	156	12	23	36	37	33	15
Not Enough Space	12		4	2	4	2	
<u>Master Bed Room</u>							
Enough Space	138	11	24	26	35	31	11
Not Enough Space	30	1	3	12	6	4	4
<u>Second Bed Room</u>							
Enough Space	117	9	16	29	26	25	12
Not Enough Space	50	3	11	9	15	9	3
<u>Third Bed Room</u>							
Enough Space	71	7	14	15	20	12	3
Not Enough Space	44	4	13	13	10	4	
<u>Fourth Bed Room</u>							
Enough Space	20	5		2	6	7	
Not Enough Space	8		1	1	3	3	

of the rooms smaller, if you could make some or the other rooms larger?

2b. (If yes), Which rooms would you make smaller and which rooms would you make larger?

	Total	Charlame	Warren	Academy	Castle	Brandywine	Forest Hills
		Gardens	II	Square			
Yes	48	2	8	12	8	13	5
No	110	10	19	19	33	21	8
<u>Kitchen</u>							
Larger	19			4	6	5	4
Smaller	14	1	4	1		8	
<u>Bathroom</u>							
Larger	6		3				3
Smaller							
<u>Living Room</u>							
Larger	1		1				
Smaller	25	1	1	8	6	6	3
<u>Master Bed Room</u>							
Larger	9			2	3	2	1
Smaller	13	1	3	1	1	6	1
<u>Second Bed Room</u>							
Larger	16	2	4	4	2	4	
Smaller	2				1	1	
<u>Third Bed Room</u>							
Larger	15	2	5	5			
Smaller	1				1		
<u>Fourth Bed Room</u>							
Larger							
Smaller							
<u>Closet</u>							
Larger							
Smaller							
<u>Hall</u>							
Larger							
Smaller							

		Total	Charlame	Gardens	II	square	wine	Hills
in each of your rooms?								
Kitchen	Enough	133	9	24	31	32	26	11
	Not "	35	3	3	7	9	9	4
Living Room	Enough	149	12	25	34	30	33	15
	Not "	19	2	4	11	2		
Bathroom	Enough	130	10	18	26	31	33	12
	Not "	38	2	9	12	10	2	3
Master Bedroom	Enough	151	12	26	34	29	35	15
	Not Enough	17	1	4	12			
2nd Bedroom	Enough	153	12	25	37	32	32	15
	Not "	14	2	1	9	2		
3rd Bedroom	Enough	102	11	23	24	25	16	3
	Not "	13	4	4	5			
4th Bedroom	Enough	24	6	2	7	9		
	Not "	4	4	1	2	1		
4.	Is there enough storage space for you to store items that can't be stored in your home?							
	yes	53	3	12	15	5	4	14
	no	110	9	15	19	36	30	1
	yes, but unsafe	3		3	1		1	
	other	2						
5a								
	yes	133	9	20	23	35	33	13
	no	33	3	7	15	4	2	2

Do you like the way the rooms are arranged in your house/apartment?

5b What do you like or dislike about it?

		Total	Charlame	Warren	Academy	Castle	Brandy-	Forest
			Gardens	II	Square	wine		Hills
Yes:	Whole House	24	1	4	5	7	7	
	Two story house	13	1		1	5	6	
	Size of Living Room	8		2	4			2
	Dining Room	7				1	1	6
	Kitchen	4		1	3	2	4	
	Bedrooms	9			1	1		
	Bathroom	3				1	1	
	Kitchen entrance	2		2				
	Other	25	2	6	8	4	1	4
No:	Traffic thru LR	8			7		1	
	Kitchen entrance	6		1	4		1	
	Bedrooms	5			3	1		1
	Three Story House	3		3				
	Dining room	2			1	1		
	Kitchen	3			1			
	Bathroom	2		2			1	
	Whole House	1		1		1		
	Other	7		2	4		1	
	Don't know	66	8	9	7	18	19	5

6a Would you like to have/do you like having an entry hall inside your home?

Have	yes	56	6	35	15
	no	4	1	3	
	doesn't matter	3		3	
Don't have	yes	84	6	32	31
	no	17	6	5	3
	doesn't matter	4		3	1

6b Why do you/would you like
an entry hall?

	Total	Charlame	Warren	Academy	Castle	Brandy-	Forest
		Gardens	II	Square	wine		Hills
As reception hall	38	1	12	11	4	8	2
Keep dirt out of LR or K	35	5	2	9	5	12	2
For Privacy	17	1	4	3	4	4	1
For winter clothes	11	1	4	3	3	3	
Keep out cold	3		1		2	2	
Other	19	3	2	9	2	1	2

7. Would you like to be able
to close off your living
room from the rest of
the house?

yes	69	3	11	22	16	13	4
no	94	8	16	14	23	22	11
doesn't matter	4	1	2	1			
yes	99	6	12	18	25	26	12
no	64	6	14	17	15	9	3
doesn't matter	4	1	2	1			
yes	32				1	17	13
Separate dining room	22		1	4	6	5	2
Half wall, counter	14		1	5	6	1	1
partial wall	8		2	2	3	2	2
Divider	3						

8b If yes, how?

Keep as is							
Separate dining room	22	1					
Half wall, counter	14	1					
partial wall	8	2					
Divider	3						

9a Do you have problems of too much or not enough sun in any of the rooms in your home?

	Total	Charlame	Warren	Academy	Castle	Brandy-	Forest
		Gardens	II	Square	wine	Hills	
much	23	2	2	2	5	8	4
enough	27	1	2	7	3	8	6
No	117	9	22	29	33	19	5

9b Is this kind of problem important to you?

problem		7	2		6	6
Yes	60	4				
No	59	6				
relation						
Yes	126	9	22	31	28	8
No	41	3	5	7	13	7
through						
eight-						
Yes	129	9	18	26	31	33
No	39	3	9	12	10	2
turb						
Yes	57	3			12	12
No	72				16	17

10 Is there good ventilation in your house?

Yes	126	9	22	31	28	8	12
No	41	3	5	7	6	7	3
through							
eight-							
Yes	129	9	18	26	31	33	2
No	39	2	6	12	10	12	1

11 Can you hear sounds through the wall from your neighbour's house?

through	129	18	26	31	33	12	16
eight-	39	9	12	10	2	3	7
-	No	3					
turb	57	6	14	12	12	10	6
	72	3					

12 Do these sounds disturb you?

			Warren	Charlame	Academy	Castle	Brandy-	Forest-	Hills
		Total	Gardens	II	Square	wine			
13	Have you had any trouble with the:								
Plumbing	Trouble	73	3	15	22	14	11	8	
	No "	95	9	12	16	27	24	7	
Heating	Trouble	50	3	7	17	14	3	6	
	No "	117	9	20	21	27	31	9	
Garbage Disposal	Trouble	15	3	6	2	2	2	2	
	No "	111	9	21	35	33	13	13	
Doors	Trouble	79	5	16	20	16	16	6	
	No "	89	7	11	13	25	19	9	
Windows	Trouble	60	5	9	19	9	15	3	
	No "	108	7	18	19	32	20	12	
14	Do you use the central laundry facility or do you have your own washer dryer?								
	central facility	82		14		35	23	10	
	own washer-dryer	39	12	25	2		3	1	
	own washer	12	1	7		6	9	4	
	other	34	1	14					
15	If you had outlets for a washer-dryer in your own house, would you buy a washer and/or dryer?								
	yes, both	95	1	25		30	30	9	
	no	14	3	1	2	6	1	1	
	yes, washer	15	2	3	5	4	4	1	
	yes, dryer	13	6	6	6	6	6	1	

16 How do you like the location
of the trash cans?

	Total	Charlame	Warren	Academy	Castle	Brandy-	Forest
		Gardens	Gardens	Square	wine	Hills	
Likes	67	7	7	8	10	23	12
Dislikes	52	1	12	21	12	4	2
OK	48	4	8	9	19	8	

If no, where or how?

Closer	15	4	9		1	1	
Further away	12	1	2	8			
Larger container	10		5	4	1		
Wants incinerator	9	1	5	2			1
Prefer in back	5	3	1	1			
Prefer big, bin, dumpster	4	2		2			
Doesn't want bin, dumpster	2	1					
Other	14	5	6	2	1		

17 If you had a chance to
redesign this apartment/
house are there any changes
you would make?

yes	127	10	23	30	25	28	11
no	36	2	4	6	15	4	4
don't know	4			2		2	
What are they?							
More Space							
Basement	16	1	6		1	4	8
Larger rooms	15		3	5	2	3	3
More storage	11		2	4	2	2	2
Larger bedrooms	9		1	2	1	1	1
Additional rooms	5			1		1	2
Other	1						1

	Total	Charlame	Gardens	III	square	wine	Hills
Penetrations	11		7	2	2	1	1
Window design	6		2	2	2		
Window size	6		2	2	2		
Window location	6	3		3			1
No glass doors	4						
Door location	3						
Other	6		3				
Materials							
Paint	10	2	5	1	1	1	
Floors-prefer wood	10	2	3	1	2	2	
Dislike tile floors	6	1	1	1	2	2	
Soundproofing	5	2	1	1	1	1	
Plumbing	1		1	1	1	1	
Other	6						
General Design							
Separate Dining Room	12	1	3	3	4	4	
Room organization	10			2	2	2	
Bath downstairs	9	1	6	1	1	1	
Window in bathroom	7		2	2	1	1	
Single level apartment	3			2	1	1	
Two level apartment	2			1	1	1	
Better fences	3	2					
Private balcony	2	1	1	1	1	1	
Other	7						
Design Details							
Stair design	7			4	4	1	
No exposed walls-raw materials	6			1	5	1	
Floor and wall colors	6				2	2	
Placement of heat vents	6				4	4	
Closet doors	3				1	1	
Kitchen shelves	4				1	1	
Counter space	3				1	1	
Other	9				2	2	

		Total	Charlame	Gardens	II	Academy	Castle	Brandywine	Forest	Hills
Construction	Poor workmanship	9		4	4	2	3			
	Cracks	4		1	1	2	2			
	Leaks	4		2	2					
	Other	1	1				1	1	1	
Appliances	Air conditioning	5	1	1	1	2				
	Doorbells	4		1	1	1				
	Bigger refrigerator	4		1	1	2				
	Vent over the store	4		1	1	2				
	Electrical outlets	4	1		2	2				
	Extra telephone jacks	2		1	1	1				
	Bigger sink	2			1	1				
	Other	5			1	1	1	1	1	
Site Design	Incinerator	3			1	1				
	Parking further away	1					2	2	2	
Circulation	Entry hall	8	2			4				
	Entrance in living room	7				3				
	Less circulation in LR	3				2				
	Other	5			1					
Other		22	3		5	10	2			

for families in a development like this to have a private yard?

e		Charlame	Warren	Academy	Castle	Brandy-	Forest
Total	152	12	24	33	39	29	15
s	16	3	5	5	2	6	6

19 Does your family use your yard/patio/balcony?

Not applicable	69	3	32	2	32
Yes	87	8	23	4	35
No	12	4	1	2	4

119a What activities do they use it for?

Sitting	61	12	7	1	1
Playing	44	15	1	1	1
Cooking & Eating	35	13	3	1	1
Dry clothes	13	4	1	1	1
Gardening	11	1	3	3	3
Entertaining	9	2	2	2	2
Storage	3	1	1	1	1
Other	7	3	1	1	1

119b What time of day do they use it most?

1	6	2	2	3
		1		
4	16	8	1	5
1	4	1		1
4	4	6	0	1
4	11	1		
Evening, late p.m.	34	1	2	4
Morning & afternoon	13	5		
Afternoon & evening	5			
All the time	14			

23a In general, are you satisfied with the way your yard/patio or balcony is fenced?	as is	10	1	1	6	7	1	5
	doesn't matter	20	2	5	4	7	1	
	don't know							
23b Why or why not?								
	Not private	27	7	12	1	7		
	Unsafe	22	2	1	2	8		
	Not good looking	6		3	1	1		
	private	2		1				
	safe	6	2			3		
	good looking	1	1	4	3			
	other	9						
24a If you had a choice, which of the following housing types would you prefer to live in?								
	stacked duplex	20	1	1	3	13		
	single level apartment	20	11	25	6	6		
	row house	120			27	17		
24b Can you tell me why you prefer this type?								
	stacked duplex -- two floors	7	1			3		
	choose up or down	5				5		
	other	7				2		
	no stairs	9				3		
	good for children	5				4		
	privacy	3				3		
	easy to clean	3				1		
	other	9				2		

	Total	Charlame	Gardens	II	Academy	Castle	Brandy-	Forest	Hills
24b con't	39	7	8	7	6	11	11	3	
row house	26	2	5	7	4	6	6	2	
Like your own house									
Upstairs	20	3	5	3	1	9	9	2	
BRs separate									
Quiet	18	3	4	5	5	6	6	2	
No one above or below	16	6	4	1	1	3	3	2	
easy to clean									
good for children	5	2	2	1	1	1	1	1	
other	15	1	12	1	1	2	2	1	

25	Do you feel this place is more like a single family house or an apartment?	house	98	11	27	7	24	28	1
		apartment	63	1	28	6	15	6	
26	In renting this apartment, do you think you are getting your money's worth?	yes	111	12	10	17	29	32	4
		no	52	17	18	10	10	3	

Part II - SITE DESIGN

	Warren	Academy	Castle	Brandy-	Forest
	Gardens	II	Square	wine	Hills

1. How many children do you have?

	Total	Charlame	Charlame	Warren	Academy	Castle	Brandy-	Forest
0	13			4		3	2	4
1	34			7		7	9	8
2	42	1		12	5	8	14	2
3	32	2		7	9	8	6	6
4	25	4		4	6	7	4	
5	13	3	1	5	5	3		
6	3	1				2		
7	3					2		
8	1					1		
Other	2							
				2				
					2.5		2.0	1.1
						3.0		
							2.0	
								2

Children per household:

2. How old are they?

Preschool only	45			7	7	5	17	9
School Age only	24	1		6	4	10	3	
Teenage only	7			4	4	2	1	
Preschool & School	32	6		8	8	6	4	
Preschool, School & Teenage	11	2		3	2	1	1	
School & Teenage	24	2		2	5	8	6	
Preschool & Teenage	3			1	1	1	1	
Adults only	4				3	3	1	
Other	6				3	2	3	2
	13				4			

3. Where do you think play areas for preschool children should be located?

	Total	Charlame	Warren	Academy	Castle	Brandywine	Forest Hills
		III	3	4	2		
Away from older kids	11	2					
Away from cars	9						
As it is now	20	6					
Close to house/within sight	66	2	10	16	8	15	5
Private Backyard	17	1	5	2	2	6	1
For each group of houses	24	1	8	2	7	5	1
Fenced and/or Supervised areas	17	1	1	6	2	5	2
Don't Know	7	1	2	1	3	1	2
Other	41	2	2	11	9	15	2

3b And for school children?

Away from house	28	2	6	3	8	8	1
Close to house	27	2	6	10	4	9	2
One central lot, playground	26	2	6	5	6	6	1
As it is now	21	3	1	1	10	5	2
School yard	6	1	2	2	2	2	1
Away from cars	4	1	1	1	2	1	2
Recreation club - outside dev.	6	1	2	1	4	4	2
Don't know	11	1	3	1	6	6	6
Other	43	2	4	14	11	15	4
Out front	57	3	14	13	14	13	7
Playground	32	7		1	11	6	4
All around	22			5	6	6	4
Backyard	17	4	2	1	4	6	2
Inside House	16	1	4	3	4	2	1
Outside Development	3			1	1	1	2
Other	21					15	2

		Total	Charlame	Warren	Academy	Castle	Brandy-	Forest
			Gardens	II	Square	wine	Brandy-	Hills
4b	And the school children?							
Out front		42	2	12	13	8	6	1
All around		38	2	5	7	4	16	4
Playground		31	5			17	5	4
Backyard		15	3	3	2	3	4	
Outside Development		14	4	3	3	1	2	1
Inside House		7		1	4	1		
Other		34		1	15	4	7	7

5a Do you think recreational

facilities should be provided for teenagers?

yes	121	7	22	32	26	25	9	
no	25	5	3	4	6	6	1	
don't know	14		2	2	5	3	2	
					12	14	6	
						13	4	
							4	
							3	
							1	
							5	

5b If yes, what facilities?

Recreation/party room	72	6	13	21	12	14	6	
Sports field	38	1	6	8	6	13	4	
Basketball court	16	1	1	4	6	4	4	
Swimming pool	13	1	3	2	6	4	3	
Employment center	2	1	1	7	8	1	1	
Other	33							

6. Do you think the outdoor areas other than the private yards are well designed?

yes	100	8	21	16	24	9	
no	53	3	3	20	10	4	
Don't know/doesn't matter	11	1	1	1	4	2	
No answer	4						

		Total	Charlame	Academy	warren	Gardens	II	Castle	Brandy-	Forest
7a Do you have a car?		89	1	7	27		14	28		12
yes		78	11	20	11		26	7		3
no										
7b If yes, how many?		85	1	6	26	1	12	28		12
one		3		1			2			
two										
three		1				1				
8. Where do you park it?		69	1	3	22		11	24	8	
Parking lot		18		4	4		3	3	4	
on street										
other		2			1			1		
9. Would you mind having the parking areas further away to keep traffic away from the children's play areas?		59	3	7	18	18	16	11	4	
yes		80		18	18	2	12	21		
no										
no answer		29	9	2			13	3		
10. Do you want to be able to keep an eye on your car from your house?		121	3	22	31		26	27	12	
yes		22		4	5		4	6		
no										
no answer		21	9		2		9	1		

		Total	Charlame	Warren	Academy	Castle	Brandy-	Forest
			Gardens	II	Square	wine	Hills	
11	Do you feel safe and secure living in this housing?	100	7	15	19	23	28	8
	yes	67	5	12	19	17	7	7

12 What would you like to have changed or added for greater security?

Better locks	43	6	7	15	4	3	8
Bars on window	24		1	12	9	2	
Less glass	22	5	7	4	1	1	4
Buzzer/Intercom	15		2	3	6	3	1
Walls	12		1	11		11	
Stronger Doors	11	1	5	1		2	
Locks on Main entry door	10		8	8	1	2	2
Window not next to door	9		4	17	23	12	2
Other or No answer		7	1	1	2		
Peep holes							
13a Do you feel the people in this development form a community?							
yes	63	8	8	10	17	17	3
no	82	3	14	21	15	18	11
don't know	17	1	4	5	6		
no answer	6		1	2	3		
13b Do you think it is important to have a sense of community here?							
yes	124	7	25	35	26	6	
no	32	4	1	3	7	8	
no answer/other	12	1	1	1	8	1	1

14. How do you feel about the relationship between people in the housing development and the people who live around it?

	Total	Charlame	Gardens	II	Warren	Academy	Castle	Brandy-	Forest-	Hills
No relationship	31	5	2	6	6	6	11	1	1	1
OK people friendly	23	1	7	4	5	5	5	1	1	1
No problems	15	1	1	5	4	4	4	2	2	2
Bad relations/"project"	11	1	1	4	3	3	3	9	9	9
Good relations	10	1	1	2	4	2	2	2	2	2
Don't Know	61	3	11	14	16	8	2	9	1	1
Other	11	3	1	4	2	1	3	3	4	4

15. Which of the following activities is your family most interested in?

Spectator Sports	Interested	110	6	6	15	30	24	15	10	10
Participating Sports	Not "	55	8	15	12	13	20	22	22	6
Concerts and Recitals	Interested	84	4	12	24	19	13	13	13	9
Art	Not "	81	3	11	23	17	11	11	11	12
Movies	Interested	77	3	11	16	14	22	24	24	3
Adult Education	Not "	88	9	16	19	17	15	15	15	7
Reading	Interested	62	3	11	19	17	20	20	20	8
Music	Not "	103	9	16	18	22	28	30	30	13
Television	Interested	126	6	19	33	28	30	30	30	2
	Not "	39	6	8	4	11	5	5	5	5
	Not "	87	4	17	30	16	15	15	15	5
	Not "	78	8	10	7	23	20	20	20	10
	Not "	116	7	19	30	22	27	27	27	11
	Not "	49	5	8	7	17	8	8	8	4
	Not "	153	12	27	35	31	34	34	34	14
	Not "	12	2	2	8	1	1	1	1	1
	Not "	151	12	25	34	31	38	38	38	4
	Not "	14	2	3	2	1	1	1	1	1

16 Which of these community facilities do you think would be important to have in a housing development like this one?

	Total	Charlame	Gardens	Academy	Castle	Brandywine	Forest Hills
Nursery	149	10	23	35	35	33	13
School	12	2	4	1	2	2	1
Child Care	139	9	24	35	32	28	11
Playgrounds	22	3	3	1	5	7	3
Meeting and party room	157	11	26	37	36	34	13
Handicraft room	5	1	1	1	1	1	1
Stores	112	9	17	30	27	16	13
Important	48	3	10	7	11	15	2
Important	111	10	21	32	21	18	9
Important	51	2	6	6	17	14	6
Important	140	11	25	34	36	20	14
Not "	23	1	2	4	2	13	1
Important	31	1	3	13	3	11	3
Other	131	11	24	25	38	23	10

17 Can you think of anything you would like to say that we have not covered?

Design	No. respondents	35	9	5	10	3	4
Maintenance	No. mentioned	47	8	1	16	5	0
Construction	No. mentioned	10	2	1	10	0	0
Management	No. mentioned	18	4	3	5	1	2
Social	No. respondents	19	3	6	4	9	5
Sanitary	No. mentioned	26	4	8	2	6	2
Additional Facilities	No. mentioned	16	1	2	3	7	5
	No. mentioned	20	1	1	3	13	0
	No. respondents	22	2	3	0	0	0
	No. mentioned	30	3	1	5	6	0
	No. respondents	5	0	0	0	0	0
	No. mentioned	6	0	0	0	0	0
	No. respondents	8	0	3	1	1	1
	No. mentioned	8	0	0	0	3	3

17. con't

	Total	Charlame	Gardens	II	Square	wine	Hills
Materials	15	1	1	7	1	4	1
	18	2	1	9	1	4	1
No. mentioned	9	0	2	3	3	0	1
Safety	11	0	2	4	4	0	1
	6	2	1	0	1	2	0
No. mentioned	6	2	1	1	1	2	0
Other							

18. All things considered,
how would you rate this
housing development?

	Excellent	3	3	3	3	3	3
good	55	4	8	3	15	17	8
fair	69	4	16	15	21	9	4
poor	21	1	1	17	2		
very poor			1	3			

Part III - MAINTENANCE

1. Would you be interested in doing more of the maintenance in return for a slight reduction in rent?

	Total	Charlame	Academy	Castle	Brandy-	Forest
		Gardens	III	Square	wine	Hills
yes	69	7	10	19	13	16
no	71	2	17	13	17	6
already do it	10	3		3	1	
no answer	18			3	8	4
						3

2. Who in your family would do these repairs?

husband	45	4	7	11	6	11	6
wife	9	2	1	1	4	1	
wife & husband	11		2	2	3	4	
son	2			1	1		
other	18	1		4	3	1	9

3. Would they want instruction?

yes	33	1	3	11	9	6	3
no	27	3	6	7	2	8	1
no answer	108	8	18	20	30	21	11

PART IV- RESPONDENT'S QUESTIONS

1. How many rooms did you have in the place where you lived before this?

	Total	Charlame	Gardens	Academy	Castle	Brandy-	Forest
1 Room	2				2		1
2 Rooms	9			2	5	3	1
3 "	12			8	5	2	2
4 "	41	1		14	7	6	5
5 "	60	6	13	12	11	16	2
6 "	21	3	2	6	6	3	1
7 "	9	2	1	3	1	2	2
8 "	2						
Other	2				2		
No Ans.	5		1	2	2		

2. What floor was it on?

	1st Floor	2	3	4	5
1st Floor	46	2	7	14	9
2nd. "	50	4	11	6	12
3rd. "	36	4	6	10	13
4th. "	7	2		1	4
5th. "	3			1	1
6th. "	1			1	1
Other	19		2	4	4
No Ans.	6	1	2	2	1

3. Did you have a patio or yard of your own?

	Total	Charlame	Warren	Academy	Castle	Brandy-	Forest
		Gardens	Gardens	II	Square	wine	Hills
No	84	6	12	10	32	16	8
Patio	4			2		2	
Yard	20		5	8	1	6	
Shared Space	15	1	4	5	1	3	1
Balcony	25	4	4	6	3	6	2
No answer	11		2	5	2	2	2

4a. How much was your monthly rent?

\$40	2			2	1	3	
\$50	11	2		2	4	6	
\$60	17	2		2	3	4	
\$70	14	1		2	3	5	
\$80	30	2		4	10	9	
\$90	30	4		7	9	5	
\$100	10			4	4	1	
\$110		9		1	4	1	
\$120		6		1	4	1	
\$130		8		1	3	1	
\$140		1		1	1	1	
\$150				5	1	3	
\$160		1		1	1	1	
\$170+		2		1	1	1	4
Don't know				19	10	5	
or							
No answer							

4b. Did that include heat?

	Total	Charlame	Warren	Academy	Castle	Brandy-	Forest
	Gardens	Gardens	II	Square	wine	vine	Hills
Included	100	7	9	26	26	23	9
\$10	3		1	1	1		
\$20	6		3	1	1	1	
\$30	12	1	1	3	3	4	
\$40	3	1	1	1	1		
\$50+	6	2	1	1	1	1	2
Don't Know	14		7			5	

4c. Did that include gas?

	Included	Under					
	60	43	17	4	8	9	15
						12	10
Included						4	1
\$10						7	3
\$10						1	6
\$20						3	4
\$30							12
\$40+							9
Don't Know			29		10		1

4d. Did that include electricity?

	Included	Under					
	33	3					
						8	7
Included						12	3
Don't Know (N.A.)	29					10	6
Under \$10	44	3				11	4
\$10	43	5				8	2
\$20	3					1	1
\$30	1						

Calculate Gross Monthly Rent

	Total	Charlame	Warren	Academy	Castle	Brandy-	Forest
		Gardens	Gardens	Square	wine	square	Hills

Don't Know	7	3	1	4	4	3	3
\$50 or less	4	2					
\$60	5						
\$70	7		2		5		
\$80	7		3		3		
\$90	17	1	6	6	7		
\$100	21	4	6	6	6		
\$110	18	3	6	4	2		
\$120	18	3	5	4	1	2	
\$130	13	1	1	3	2	5	
\$140	9	1		1	2	4	
\$150	8			2	2	4	
\$160+	12	2	2	2	1	2	3

5. How much do you pay for electricity here?

Included	12	12	9	3	9	4	7
Don't Know	32		2	19	12	8	8
Under \$10	62		12	16	19	21	21
\$10	56		3	1	1	9	9
\$20	5					1	1
\$30 or more	1						

6. How many people are there in your household altogether?

	Total	Charlame	Gardens	Academy	Castle	Brandy-	Forest
			II	square	wine	Hills	Hills
1 Person	1			1	5	5	2
2 People	17			4	5	3	4
3 "	29		1	13	10	11	9
4 "	51	2		5	7	8	7
5 "	28	1		3	4	5	5
6 "	21	3		1	4	4	1
7 "	13	4		1	1	2	
8 "	4	1				1	
9 "	4			1		3	

7. List the members of the household

Couple	11		1	2	3	1	4
Mother - Kids	35	6	11	6	9	3	
Father - Kids	2			1	1		
Parents - Kids	100	5	10	23	20	31	11
Grandmother, Mother							
Kids	3	1	1	1	1		
Grandparents, Parents							
Kids	5				5	2	
Other	10	2	3	1			
No Answer							

8. How does your husband get to work?

Drives Car	67	1	3	20	8	24	
Public Trans.	50	5	9	10	14	10	4
Walks	7		3	1	2	1	1
Car Pool	4			1	3	2	
Other	9			2	7		

10. Into which of the following categories does your total family income fall?

	Total	Charlame	Warren Gardens	Academy II	Castle Square	Brandy- wine	Forest Hills
Refused	36	2	4	12	10	7	2
Under \$5,000	39	7	7	6	15	2	2
\$5,000-7,000	43	3	7	11	11	8	3
\$7,000-9,000	41		8	8	5	13	7
\$9,000-11,000	7		1		4	1	1
\$11,000 or more	1						

11. How long have you lived here?

3 Mos. - Less	11	1	1	1	2	1	2
3 Mos. - 6 Mos.	8	6			4	4	1
6 Mos. - 9 Mos.	16	11	2	2	8	8	4
9 Mos. - 1 Yr.	20	4	3	1	9	9	3
1½ Yrs. - 1½ Yrs.	12		27	13	1	1	5
1½ Yrs. - 2 Yrs.	62	10	1	4	21	3	1
Over 2 Yrs.	33	1	1	1	3	2	3
No Answer	6						

12. How much longer do you plan to stay?

Want to move soon	23	1	3	10	3	2	4
A year or less	20	1	3	2	1	8	5
Two years or more	25		1	2	8	9	5
Long as I can	15	4	4	5	2	1	1
Long time/No choice	4	2	1	15	20	19	13
Indefinite/Don't know	72	4		1	1	1	1
Until buy own home	2						
Other	7						

13. Is this house/apartment better or worse than you anticipated?

	Total	Charlame	Warren	Academy	Castle	Brandy-	Forest	Hills
		Gardens	Gardens	III	Square	wine		
Better	65	8	13	4	24	9	7	
Worse	47	2	7	24	5	7	2	
What I Expected	41	2	5	9	7	14	4	
Don't Know	9	2	1	1	1	3	2	
Other	9		3	4				

1. Race of Respondent:		Total	Charlame	Gardens	Academy	II	Castle	Brandy-	Forest
							square	wine	Hills
Black	94	12	27	33	15	3			4
White	51			5	5	31			10
Oriental	15				13	1			1
Spanish Speaking	8			8					
Other	2					2			
2. Age of Respondent:									
Teens	5			1		2			
20's	78	2		15	16	13		20	12
30's	35	5		7	14	9		10	
40's	23	5		1	4	9		2	2
50's	11			2	1	6		1	
60's	5			1	2	2			
70's	1				1				
3. Sex of Respondent:									
Male	34			2	9	15		4	
Female	134	12	25	29	26	31		11	

4. Respondent:

	Total	Charlame	Warren	Academy	Castle	Brandy-	Forest
		Gardens	Gardens	III	Square	wine	Hills
Refused	36	3	3	6	7	11	6
Not Responsive	6	1	2	2	2	1	
Moderately Responsive	50	3	8	12	19	5	3
Adequately Responsive	93	7	15	21	17	24	9
Overly Responsive	19	1	4	3	3	5	3

5. Could you see any changes the respondent had made on the outside of the house?

No	137	8	16	37	32	30	14
Garden	15	3	2	1	4	4	
Doorbell	4		2		2		
Grating on window	0						
Fence	4	1	1		2		
Other	4		1		1	1	1

6. Could you see any changes the respondent had made inside the house?

No	104	7	11	24	27	28	7
Paint	30	4	2	6	9	6	3
Tile around Stove/Sink	10		3	3		2	2
Special Locks	20		1	1	15	1	3
Other	23	1	7	6	3	4	2

BIBLIOGRAPHY

AIA, January 1968, p. 72, "When a Sociologist Gets into the Act."
April 1968, p. 79, "The Architect and Housing"

Architectural Forum, Nov. 1968, p. 57, "LaClede Town," 221 (d) 3
housing in St. Louis

Architectural Record, June 1968, p. 147, "New Approaches to
Urban Housing." Mostly 221 (d) 3

Boston, March 1969, p. 72, "Housing of Ill Repute," Sadelle Sacks.

JOH, June 1967 "Fenced Back Yard - Unfenced Front Yard - Enclosed
Front Porch", Clare C. Cooper.

Sept. 1967, p. 446, "Licensing Housing Management," L. Wexler
Oct. 1968, p. 471, "Rehabilitation in New Jersey," J. Weinstein,
people planning with architects.

Also p. 467, "Instant Housing" --- Infill in Boston
Jan. 1969, p. 26, "Rent Supplements" --- Charlame II.
April 1969, p. 196, "Improved Outdoor Lighting." Detroit
public housing.

Also p. 189, "How is Federal Housing Policy Made?"
May 1969, on Charlame II.

An Evaluation of 221 (d) 3 in Washington Park, Stephen Diamond
et. al. 1966

Housing - Boston, Tilly, 1965

Housing, Roxbury - North Dorchester, BRA, p. Starr, 1962

The Dispossessed, Housing - Low Income - Philadelphia, L. Berson, 1967

Boston Redevelopment Authority Urban Renewal Plan, Washington Park
Urban Renewal Area, Project No. Mass R-24, January 14, 1963

The New Boston, Joint Cetner, Boston Conference 1968

Housing in Boston, BRA, 1967

Survey Tenant, Ginion, Washington Park Summary of BRA survey, 1967
Housing

A Decent Home, Report of the President's Committee on Urban Housing,
1968.

Analysis of the Design Process at Two Moderate-Income Housing

Developments. Clare Cooper and Phyllis Hackett, 1968.
Unpublished paper.

Apartment Communities. The Next Big Market. Carl Norcross and
John Hysom, 1968.

Changing Concepts of the Tenant-Management Relationship. NAHRO, 1967.

Design of the Housing Site. Robert Katz, 1966.

Housing America's Low and Moderate Income Families. Report No. 7,
National Commission on Urban Problems, 1968.

More Than Shelter. Social Needs, Report No. 8.

Public Housing Design. Federal Public Housing Authority, 1946.

Report of Large Family-Rent Subsidy Demonstration Project.
National Capital Housing Authority, Washington, 1966.

Survey of Boston Departments and Agencies concerned with Housing,
Development and Environmental Control, March 1969.

The Boston Landlord: Rents and Operating Expenses. BRA 1969.
Melissa Hutchins.

To Rebuild A City. Report on the Organization of Housing Functions
in Boston. Citizens Housing and Planning Association of
Metropolitan Boston Inc. 1969.

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BRA2 Boston Redev. Auth.

221(d)3 Housing:

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